Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

Treatment Improvement Protocol (TIP)
Series 10

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What Is a TIP?

Treatment Improvement Protocols (TIPs) are prepared by the Quality Assurance and Evaluation Branch of the Center for Substance Abuse Treatment (CSAT). Their purpose is to facilitate the transfer of state-of-the-art protocols and guidelines for treating alcohol and other drug (AOD) abuse from acknowledged clinical, research, and administrative experts to the Nation's AOD abuse treatment resources. Disseminating a TIP is the last step in a process that begins with the recommendation of an AOD abuse problem area for consideration by a panel of experts. Panel members include clinicians, researchers, and program managers, as well as professionals in related fields such as social services or criminal justice.

Once a topic has been selected, CSAT creates a Federal Resource Panel, composed of members of pertinent Federal agencies and national organizations, to review the state-of-the-art treatment and program management in the area selected. This Federal panel's recommendations are then transmitted to a second group of non-Federal experts who are intimately familiar with the topic. This group, known as a non-Federal Consensus Panel, meets for about 3 days, makes recommendations, defines protocols, and arrives at agreement on protocols. Its members represent AOD abuse treatment programs, hospitals, community health centers, counseling programs, criminal justice and child welfare agencies, and private practitioners. The panel chair is charged with ensuring that the resulting protocol reflects true group consensus.

The next step is a review of the proposed guidelines and protocol by a third group—the expert field reviewers. Once their recommendations and responses have been reviewed, the chair approves the document for publication. The result is a TIP reflecting the state of the art of AOD abuse treatment in public and private programs recognized for providing high-quality and innovative AOD abuse treatment.

This TIP on assessment and treatment planning for cocaine-abusing methadone-maintained patients represents another step by CSAT toward its goal of bringing national leadership to bear
in the effort to improve AOD abuse treatment.

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Foreword

The increasing complexity of the problems of cocaine-abusing patients in the substance abuse treatment system has created pressure on treatment providers to expand the scope of services to meet the complex needs of multidrug users. Narcotic treatment programs (NTPs) have been successful in treating opioid addicts for their narcotic addiction but in many instances have been less successful in treating patients who are also dependent on cocaine. The increasing prevalence
of acquired immune deficiency syndrome (AIDS) and multidrug-resistant TB among drug users has further complicated treatment needs and heightened the urgency to provide effective drug treatment services. As the Federal office responsible for providing leadership in improving substance abuse treatment services, the Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration has sponsored the development of this Treatment Improvement Protocol (TIP) to address the treatment needs of patients who are abusing opioids and stimulants, especially cocaine and crack cocaine.

CSAT is committed to assisting State policy officials and treatment providers with understanding current treatment issues and improving treatment for all substance abuse patients. This TIP is one of a series written with the assistance of substance abuse treatment experts throughout the United States that serve as guidelines to help substance abuse treatment providers meet treatment challenges of the 1990s. Furthermore, the TIP is intended to assist State alcohol and drug agencies in implementing 45 CFR, § Part 96, which requires States to provide for independent peer review to assess the quality, appropriateness, and efficacy of treatment services by entities that receive State Substance Abuse Prevention and Treatment Block Grant funds. This TIP provides guidelines to assist States in developing criteria for State independent peer review. The TIP was developed as an initiative of CSAT’s Methadone Treatment Improvement Project (MTIP), which is designed to assist States and methadone treatment providers in effectively identifying and addressing technical assistance needs.

The problem of patients who are dependent on multiple drugs and stimulants has become increasingly apparent. This TIP provides recommendations for using effective treatment practices as demonstrated by the scientific community and treatment providers. While the issue of concurrent dependency on narcotics and cocaine is sometimes viewed as a concern specific to narcotic treatment programs, the strategies recommended herein may be applied to many other treatment settings.

We hope that the substance abuse treatment community will use this TIP and will join CSAT in our commitment to enhancing the quality and integrity of treatment services to drug-dependent patients.

David J. Mactas

Director

Center for Substance Abuse Treatment

Note From the Chair

Patients who abuse opioids and cocaine present a unique challenge to substance abuse treatment providers. Traditional treatment strategies have focused on one addiction or the other without noting the implications of opioid treatment on the use of cocaine or cocaine treatment on the use of opioids.\(^1\) In many treatment settings, the problem of multidrug dependence creates pressures on providers to work with patients through more intensified approaches than those required for patients abusing one substance. The combination of opioids and cocaine is particularly difficult because treatment approaches developed for opioids and cocaine individually have not been
successful in helping concurrently dependent persons.

This Treatment Improvement Protocol (TIP) is intended to examine the physical and psychosocial sequelae associated with the abuse of opioids in combination with cocaine and offer assessment and treatment planning protocols for staff to use in substance abuse treatment programs.

To the extent possible, the document is based on available research information. However, many of the clinical issues facing providers of treatment to concurrently dependent persons have yet to be fully assessed. Few data exist on treating concurrent cocaine abuse, and even less information exists on treating concurrent abuse of other stimulants. This TIP is a reflection of the treatment modalities that are being used in various treatment centers throughout the Nation and should be viewed as such, rather than as a document that purports to have definitive solutions to what has become an extraordinarily difficult problem. Where clinical research is lacking, the TIP makes recommendations for treatment strategies based on clinical models developed by successful treatment programs. These recommendations should be considered guides, and their use should be tailored to the specific needs of an individual program's patient population.

Methadone patients with concurrent dependency on cocaine are often admitted for treatment in methadone treatment programs (MTPs).\textsuperscript{2} Difficulties in determining whether cocaine use increases once patients are enrolled in an MTP, or is unrelated to methadone use, have prompted studies of methadone treatment patients. At the same time, already overburdened programs are struggling to create treatment approaches effective for concurrently dependent persons. Because of these issues, much of the information in this document is directly applicable to MTPs.

Levo-alpha-acetylmethadol (LAAM) therapy may be an appropriate substitute for methadone maintenance treatment. Increasingly, methadone treatment centers are treating patients with LAAM as an alternative to methadone. It is important to read this TIP with the understanding that its recommendations may also apply to LAAM therapy, as well as other substitution therapies that are developed.

The Consensus Panel convened to create this document included some of the most distinguished clinicians, researchers, and policy officials in the field of substance abuse. All have a specific area of expertise in the problems of patients dependent on opioids or cocaine. Convening the group provided a unique opportunity to bring together substance abuse professionals from across the Nation to develop a document for the substance abuse treatment field that includes state-of-the-art information. We hope you find this TIP useful in exploring the treatment needs of methadone patients concurrently dependent on cocaine.

Herbert D. Kleber, M.D.

Chair, TIP Consensus Panel

\textsuperscript{1}Use of the word “opioids” in this TIP usually refers to heroin, although other opioid agonists are also included in this category. The discussion also includes all routes of administration.
Although the language used in the Federal regulations (21 CFR 291.505) refers to narcotic treatment programs (NTPs), most, if not all, NTPs are in fact methadone treatment programs (MTPs). The language of this TIP reflects that reality and will use the term "MTPs" when discussing programs.
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Chapter 1 - Overview

The care of methadone patients concurrently dependent on cocaine is one of the most important issues facing the substance abuse treatment community. It is critical because of the complexity of patient problems and lack of one clear and effective treatment strategy. This document was developed to begin to address this problem.

This Treatment Improvement Protocol (TIP) is written principally for use by administrative, medical, and counseling staff. Clinic or program managers and Federal, State, and private-sector officials responsible for program development, fundraising, monitoring, and regulatory oversight may also find this document useful to ensure effective service provision in methadone treatment programs (MTPs). The TIP should help define appropriate treatment interventions and improve the quality of treatment and treatment outcomes through the following:

- Increasing staff and patient information about opioids and cocaine and the impact of drug use on patient health and treatment outcomes
- Increasing staff knowledge about appropriate medical interventions, including pharmacological interventions
- Improving the ability of clinical and counseling staff to assess and treat concurrent dependency, promote retention in treatment, and prevent relapse
- Suggesting strategies and guidelines that programs can use to assist in preventing and treating concurrent use of cocaine and opioids
- Providing resources for additional assistance
- Providing guidance for States about Federal independent peer review regulations (45 CFR, § Part 06), effective March 10, 1993, which implement the independent peer review requirement of Section 1943(a)(1)(A)(B) of the Public Health Service Act. (These regulations require States to assess the quality, appropriateness, and efficacy of treatment services provided by entities that receive State funds.)

Methodology for Development of the TIP

A three-phase process was used to develop this document:
A Federal Resource Panel of representatives of various Federal agencies met to review the TIP prospectus, identify resource materials to use during TIP development, and nominate members of the Consensus Panel.

A non-Federal Consensus Panel of 20 experts in the substance abuse field convened to produce a draft protocol document and develop recommendations for treatment strategies.

A Field Review Group of treatment providers and State and Federal policy officials commented in writing on the protocol prepared by the Consensus Panel. These comments were incorporated into the final document.

Over 95 nominations were received from State Alcohol and Other Drug (AOD) agencies and Federal agencies for participation on the Consensus Panel. In collaboration with the TIP chairperson, participants were selected by the Center for Substance Abuse Treatment (CSAT), on the basis of their area of expertise and location, to reflect racial, ethnic, and gender diversity. The Panel met on two occasions, with much of the policy deliberation taking place in small groups.

The available literature indicates that research on issues of concurrent dependency on opioids and stimulants largely focuses on either heroin or cocaine use. In addition, several studies have specifically reviewed treatment issues relating to patients treated in narcotic treatment programs with methadone. Recognizing this lack of research, the information presented in this document draws primarily on literature discussing heroin and cocaine use and, when possible, extrapolates conclusions about other opioids and stimulants from these two bodies of literature. Note that cocaine is only one of several substances that may appear as a concurrent dependency in MTPs. Other abused substances may include alcohol, nicotine, benzodiazepines, and stimulants other than cocaine. However, the purpose of this document is to address the issues surrounding methadone patients concurrently dependent on cocaine.

**Critical Issues Deliberated by the Consensus Panel**

In creating this document, the Consensus Panel described treatment strategies and reviewed research findings for treating concurrent dependency on opioids and cocaine in MTPs. Because extensive empirical research on this patient population is lacking, many of the strategies identified in this document are based on available clinical models. The treatment strategies presented here are intended to provide guides for treatment: many of the treatment modalities and facilities discussed present an ideal. The Consensus Panel recognized that this ideal may not always be feasible given the scarcity of adequate resources and the budgetary constraints programs face. Each program should adapt treatment strategies to its resources and the needs of the population it serves.

The Consensus Panel participants held a range of views, summarized below, that provided guiding principles for using the treatment strategies identified in this TIP:

- It is clinically appropriate to treat patients with concurrent dependencies within methadone programs.
- Patients who abuse cocaine will benefit most from a comprehensive treatment program ([McLellan et al. 1993](#)).
• Given that patients with concurrent dependencies require an increased intensity of comprehensive treatment interventions, program staff should be thoroughly trained to implement cocaine-specific treatment.

• Physicians should be present at methadone clinics to attend to medical problems related to cocaine and heroin use. Physicians should play a leadership role in planning the medical treatment of the patient.

• Issues such as addiction severity, medical status, psychiatric status, treatment history, and social support network play an important role in determining treatment. Treatment modalities should be responsive to the needs of specific patients. If a particular treatment is not available on site, efforts should be made to refer the patient to an appropriate setting.

• Employing cultural and other relevant belief systems in treatment can positively affect the treatment process, and efforts should focus on creating and promoting culturally appropriate services. A program’s design, content, and staffing should respond to the values, belief systems, and behaviors of the group served.

• Lowering methadone doses as part of a contingency management protocol does not appear to be effective in managing cocaine use and may increase heroin use.

• Controversy remains over the conflicting approaches of harm reduction versus limit setting for methadone patients concurrently dependent on cocaine. (See the Retention Versus Discharge section of Chapter 5.)

Finally, alcohol dependency is a serious problem among narcotic addicts and must be carefully explored as treatment plans are carried out. This TIP, while recognizing the impact of alcohol abuse on methadone patients, focuses on abuse of cocaine among these patients.
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Chapter 2-Statement of the Problem

This chapter highlights areas of specific concern about concurrent dependency on opioids and cocaine. It covers epidemiology, program interventions, health consequences, neurochemical and psychological effects, associated psychiatric and psychological conditions, social and community complications, impact on various treatment settings, and concerns specific to racial and ethnic minorities. Research data are cited when available.

Epidemiology

In the past, narcotic addicts commonly were addicted primarily to heroin, and much less often secondarily addicted to alcohol and benzodiazepines. Before 1980, less than 10 percent of methadone patients had at least one cocaine-positive urine. Today, however, many heroin addicts entering MTPs are simultaneously addicted to cocaine, and cocaine use among this population has increased steadily since the 1980s. In 1981, a New York City study noted that only 21 percent of methadone patients had at least one cocaine-positive urine, but by 1988, the figure had risen to 63 percent (Hartel et al. 1989). However, widespread cocaine use by methadone patients has not been limited to New York City and other East Coast metropolitan areas: two studies of methadone programs nationwide found that 20-40 percent of the patients were using cocaine (Condelli et al. 1991; Magura et al. 1991).

Increased cocaine use among methadone patients partly reflects a widespread increase in cocaine use nationwide since 1973. Johnson and Muffler (1992), in their overview of the epidemiology of drug use and abuse, call the years 1965-1973 the "heroin era," 1975-1984 the "cocaine and freebase era," and 1985 to the present the "crack era." Data from the National Institute on Drug Abuse (NIDA) Drug Abuse Warning Network (DAWN) show that the number of cocaine mentions in emergency room episodes increased progressively during the 1980s. Since 1990, this number has continued to increase. Following a 27-percent decrease between 1989 and 1990, mentions of cocaine use rose 26 percent between 1990 and 1991 and an additional 18 percent between 1991 and 1992 (NIDA 1993) (see figure).
Cocaine and heroin are sometimes used together in a practice commonly known as "speedballing." Some patients claim that methadone lengthens and mellows the effects of cocaine, presumably attenuating the negative reinforcers associated with cocaine crash (Condelli et al. 1991). Some patients also use alcohol or benzodiazepines or both concurrently with cocaine and heroin to reduce these effects of the cocaine crash, often marked by anxiety, depression, fatigue, and jitteriness. Thus, just as heroin use can increase the likelihood of cocaine dependence, cocaine use can increase the risk of heroin dependence as cocaine's side effects are titrated with opioids to modulate the cocaine crash and reduce cocaine-induced agitation (Barthwell and Gastfriend 1993).

Cocaine and heroin may also be used separately. When a heroin addict receives a blocking dose of methadone, heroin will not produce euphoria because of the increased cross-tolerance produced by the methadone (Kosten et al. 1987b). Cocaine remains effective because it does not work through the opioid receptors. Cocaine use has been known to influence methadone patients to buy additional methadone illicitly because they believe that cocaine decreases methadone levels in the system and fear opioid withdrawal symptoms (Hunt et al. 1984). Some clinicians also believe that methadone patients who abuse cocaine are more likely to divert their methadone take-home bottles to support their stimulant habit.

The increased availability of both cocaine and heroin has further exacerbated the problem. Cocaine is available in relatively affordable quantities and can be obtained easily, often in close proximity to many MTP sites. The cost of heroin has declined in many communities, making it easily affordable as well.

Studies have been conducted on indicators that predict cocaine use among methadone patients. The findings are diverse. Preadmission use of cocaine is a possible predictor of postadmission use. Depressive symptoms at admission, demographics, and psychiatric comorbidity have also been examined as possible risk factors for continued cocaine use during treatment. Some patients use cocaine because they used it before using methadone; others use it because it is prevalent and cheap. A subgroup of methadone patients that is difficult to characterize may use cocaine to ameliorate psychiatric symptoms or the sedating effects of opioids. At this time findings about subgroups of cocaine users remain inconclusive (Magura et al. 1991).

**Program Interventions**

Studies of MTPs show that they are generally effective in reducing heroin use. However, the literature review of Dunteman and coworkers (1992) on the effectiveness of MTPs regarding cocaine use indicates both a paucity of published research on the subject and diverse, somewhat conflicting findings. For example, Magura et al. (1991) reported a decrease in cocaine use from 84 percent at admission to 66 percent after 6 months in treatment; Hartel et al. (1989) reported that prevalence of cocaine use was lower for patients receiving more than 70 mg/day of methadone. However, Chaissone et al. (1989) noted that while methadone therapy was associated with substantial reductions in heroin use and some reduction in cocaine use, 24 percent of cocaine users receiving methadone began or increased cocaine use after entry into treatment.
Research by Kosten et al. (1987b; 1992) on cocaine abuse among methadone patients suggests that the combination of methadone maintenance and routine drug counseling is poorly suited to control concurrent drug abuse. Instead, MTPs must begin to deal with the increase in cocaine abuse among their patients by supplementing routine methadone treatment with additional counseling focused on cocaine abuse and possibly with other pharmacological interventions. In addition to reducing cocaine use among methadone patients, MTPs are also challenged to address the social, psychological, and physiological problems that elicit and reinforce the use of cocaine (Condelli et al. 1991). Condelli and coworkers found that interventions used for other types of cocaine users do not always work for methadone patients addicted to cocaine. Furthermore, their literature review indicates that only a few MTPs have implemented any behavioral interventions for cocaine abuse. Stark and Campbell's (1991) research suggests that methadone patients addicted to cocaine are more difficult to treat, in part because of their longstanding addiction and its concomitant effects in psychological, legal, social, and vocational realms. It is important to remember that individual patients and subgroups of patients have different needs and, therefore, require different interventions.

Although some programs have attempted a variety of interventions to treat concurrent dependency on opioids and cocaine, a significant need remains for additional research. Some of these interventions have met with controversy. For example, a number of programs have experimented with lowering methadone doses or withdrawing and discharging patients after they have had a succession of positive urine tests for cocaine. Since patients often highly value methadone maintenance, the possibility of being withdrawn from methadone because of continued cocaine or other stimulant abuse may motivate some patients to discontinue their cocaine use. Even when this strategy is not successful for a particular patient, adherence to this policy may have a beneficial effect on the program overall by discouraging other patients from beginning or continuing to use other stimulants. It may also have a delayed impact on the patient who is discharged from the methadone program for continued stimulant abuse. On subsequent readmission, the patient may be less likely to begin or to continue stimulant use for fear of being withdrawn from methadone.

Proponents of this approach believe that the failure to respond to a patient's continued stimulant abuse with a series of progressively stringent negative sanctions allows patients to ignore the negative consequences of their stimulant abuse.

Opponents of this view argue that in this era of increasing human immunodeficiency virus (HIV) infection rates among injecting drug users, there are health reasons for not implementing interventions that may cause an injecting drug user to leave treatment. Continuation of an adequate dose of methadone can help patients to achieve a stable lifestyle, which may result in improved family relationships, better employment status, decreased criminal behavior, and reduced behavioral problems. These benefits, however, have not been evaluated within the context of concurrent cocaine abuse.

MTPs addressing the cocaine addiction of their patients have attempted a variety of behavioral interventions. For example, after a number of cocaine-positive urine tests, a program may increase individual and group counseling, develop contingencies for testing urine more frequently, integrate measures for treating all psychosocial needs, and implement services
targeted at reducing problems that reinforce continued drug use. It is important to retain patients in treatment for concurrent addictions to enable them to continue receiving an array of medical, psychological, and social services for continued use of drugs.

In conclusion, the issue of discharging or retaining patients because of continued cocaine use is controversial, and programs remain divided on both the policy in general and its application to specific patients. Programs should remember that individuals injecting cocaine while on methadone remain at risk for HIV and should carefully consider whether retaining such patients is in the best interests of either the patient or the program.

**Health Consequences**

Medical complications among substance abusers are common. However, for addicts concurrently dependent upon narcotics and cocaine, medical problems, as well as psychological problems, may be severe.

A variety of preexisting medical problems may be present among addicts entering MTPs primarily because many opioids are self-administered by injection. Injecting drug users are at risk for pneumonia, hepatitis, tuberculosis (TB), tetanus, thrombophlebitis, endocarditis, skin and soft tissue infections, and HIV. Other common diseases among persons addicted to opioids include liver disease, cardiovascular disorders, and sexually transmitted diseases.

The poor health status of patients entering treatment is often related to their abuse of other drugs as well, including alcohol. Because cocaine abuse is popular among opioid addicts, many patients entering MTPs also have medical complications related to such abuse: cardiovascular, neurologic, pulmonary, and gastrointestinal problems; anemia; dental caries; sexual dysfunction; trauma; seizures; psychiatric problems; and neuropsychological impairment. If cocaine is injected, the patients are at increased risk for the complications of parenteral drug abuse mentioned above, most notably hepatitis and HIV infection.

Overall, prolonged disease and infection due to continued drug abuse is a significant concern with regard to concurrently dependent patients. The drug-using population often avoids medical facilities, and MTPs are sometimes the only place where methadone patients receive medical care. As a result of the more severe physical and psychosocial deterioration, depression, and poor general state of health among the concurrently dependent patients, treatment programs are now in the position of managing complex medical problems.

Although the patient may substantially reduce heroin use upon entry into an MTP, it has been found that many patients also dependent on cocaine continue to abuse heroin as well as other drugs. There is considerable concern about possible complications from the interaction between methadone and other drugs. Kreek (1993) conducted a number of studies investigating these interactions and her findings indicated significant negative interactions between methadone and cocaine. For example, methadone patients report that cocaine appears to interfere with the efficiency and duration of methadone dosage and that they begin to feel opioid withdrawal symptoms before their next scheduled dose. However, these findings need to be confirmed, and ongoing studies are being conducted.
Neurochemical and Psychological Effects of Cocaine and Heroin

Neurochemical Effects of Cocaine

Cocaine is an alkaloid derived from the leaves of the coca plant. It is a naturally occurring stimulant and euphoriant that achieves these effects by interacting with substances in the central nervous system that transmit messages to the different parts of the brain. Its effects begin at the cellular level. Cocaine's primary effect in the synapse is to block the synaptic reuptake of three neurotransmitters: dopamine, serotonin, and noradrenaline, preventing them from being absorbed back into the cells that sent them (see figure 2). Trapped in the gap between cells, the neurotransmitters fire pleasure messages from the "pleasure pathway" to the brain. Thus, cocaine stimulates the pleasure pathway, which normally allows someone to enjoy a good feeling (e.g., food, sex, or the sight of a sunrise), producing the euphoria that addicts experience (McNeil 1992).

The increase in medical emergencies in hospitals during the 1980s corresponded with widespread cocaine use. Once thought to be benign, cocaine is now known to have highly addictive and dangerous qualities. It is cocaine's neurochemical effects that give it these qualities.

Cocaine's combination of effects at the synapse brings about many, if not all, of the neurochemical actions observed among addicts. These actions include those that produce the high and those that occur following a crash or cessation of cocaine use (Mulé 1985). Gold (1992) lists several effects of cocaine when taken in low to average dosage:

- Euphoria
- Increased sense of energy
- Enhanced mental acuity
- Increased sensory awareness (sexual, auditory, tactile, visual)
- Decreased appetite (anorexia)
- Increased anxiety and suspiciousness
- Decreased need for sleep
- Postponement of fatigue
- Increased self-confidence, egocentricity
- Delusions
- Generalized sympathetic physical symptoms

While cocaine's euphoria may result from the acute activation of the dopamine systems in the brain, chronic cocaine use can result in neurotransmitter and neuroendocrine alterations. It has been proposed that dopamine depletion results from overstimulation of these neurons and excessive synaptic metabolism of this neurotransmitter. This theory suggests that repeated cocaine administration produces a decrease in brain dopamine that can be temporarily corrected by acute cocaine administration that "refreshes" the system only briefly while causing further depletion (Crosby et al. 1991). In addition to giving a euphoric high, taking cocaine also stimulates the heart and respiratory rates, elevates the blood pressure, depresses hunger, and may cause dysphoria.
**Neurochemical Effects of Heroin**

Heroin (diacetylmorphine) is a semisynthetic opioid derived from opium. Opioids affect the body by binding with one or more specific type(s) of opioid receptors on the cell membranes of neurons and certain other cells, such as white blood cells. There are multiple opioid receptor types (mu, kappa, delta, and lambda) that appear to serve different physiologic functions (Jaffe 1992). The mu receptor is most important for heroin's euphoric and analgesic effects. Although opioids have substantial effects on a number of organ systems, the most important in discussing abuse are those involving the central nervous system, including analgesia, euphoria, and sedation. With repeated use, tolerance and physical dependence develop (Ling and Wesson 1992).

When an opioid such as heroin is taken, it crosses the blood-brain barrier. Once in the brain, it is hydrolyzed to morphine, the compound believed to be responsible for its effects. Additionally, it is thought that chronic opioid use causes a receptor disorder, leading to down-regulation of the modulation system and possibly a suppression of endogenous ligands (Dole 1988; Zweben and Payte 1992). Another physiologic effect resulting from heroin abuse is respiratory depression. A slow and shallow respiratory pattern results from inhibition of the brainstem respiratory center and a reduced responsiveness to carbon dioxide accumulation (Ling and Wesson 1992).

**Associated Psychiatric and Psychological Conditions**

Treatment of concurrently dependent narcotic and cocaine users may be challenged by several associated complications. One such complication is cocaine or amphetamine psychosis. This condition can occur with prolonged high-dose administration of amphetamine or cocaine. Paranoia and other acute psychotic symptoms appear but can generally be treated with haloperidol (Haldol) (Smith 1986; Smith and Wesson 1988). Although rare, occasional cases of a longer lasting cocaine-precipitated thought disorder may appear. These cases, however, are usually complicated by multiple substance abuse (Smith 1986).

Psychiatric diagnoses are significantly overrepresented among patients in substance abuse treatment programs. The Epidemiologic Catchment Area (ECA) study by Regier and coworkers (1990) revealed that over 50 percent of substance abusers who received treatment had a coexisting psychiatric disorder. In an overview of research on psychiatric comorbidity, Gawin and Ellinwood (1988) state that among cocaine and opioid abusers, patients with affective (or mood) disorders, including depression, are overrepresented. Among cocaine abusers and cocaine-abusing opioid addicts, antisocial personality (ASP) disorder is overrepresented (Kosten et al. 1986a; Kosten et al. 1986b), and appears more frequently among populations of addicted persons than in the general population (Barthwell and Gastfriend 1993). Multidrug use can actually be seen as an associated feature of ASP (Barthwell and Gastfriend 1993).

Sexual dysfunction is a complicating factor among cocaine and other stimulant abusers and may need to be addressed in treating concurrently addicted patients. While at low doses cocaine enhances sexual desire, at higher doses it appears to impair sexual functioning in both males and females (Smith 1986; Smith and Wesson 1988). More importantly, high doses of cocaine or amphetamines can lead to compulsive sexual behavior such as compulsive masturbation rituals.
or multipartner marathons that the individual self-defines as aberrant and unhealthy (Smith 1986; Millman 1988; Smith and Wesson 1988).

**Social and Community Complications**

Hunt and coworkers (1986) revealed a direct relationship between escalating cocaine use among methadone patients and increasing involvement in crime. With occasional use, criminal activity may serve to buffer expenses in general, including the expense of cocaine, but may not be motivationally linked to cocaine use. When frequency of use exceeds one or two times per week, property and drug-dealing crimes increase significantly because of both financial need and lifestyle considerations (frequent use related to the social norms of career criminals). The authors point out that as cocaine use escalates, the likelihood of concurrent heroin use increases, thus adding the expense of another drug and further accelerating criminal activity.

It is important to view the interrelationship of substance abuse and crime within a larger social context. Wallace and coworkers (1992) examine the literature on the decay of America's urban communities and its effect on intensified patterns of substance abuse. They assess the decay of the social network structure in these communities and the decline in the physical and mental health of their residents. The decline of urban areas can be attributed to several factors, including an increase in violence, often associated with the presence of drugs; a loss of middle-class populations and affordable housing, which is a critical factor in the public health status of residents; and abandonment of buildings.

Homelessness is another factor related to urban decay and substance abuse. The homeless substance-abusing population is more susceptible than the general population to certain health conditions, including vascular disease, trauma, hypertension, poor dentition, gastrointestinal disorders, hepatic diseases, neurological and seizure disorders, arthritis, and generalized infections. Homeless substance abusers are also at risk for contracting HIV, tuberculosis, and syphilis (Joseph 1992).

Children of substance abusers require special attention. They are at risk of developing educational, medical, and emotional problems and have the potential for abusing illicit drugs themselves. Children of substance abusers may also have physical or developmental disabilities or both, and they are at risk of contracting HIV infection if born to infected mothers. Such children require special approaches and treatment (Juliana and Goodman 1992).

**Impact on Various Treatment Settings**

The needs of addicts seeking treatment vary, as do therapies available to treat them in a given community. In many communities, for instance, methadone treatment is not available. Nine States-Idaho, Maine, Mississippi, Montana, New Hampshire, North Dakota, South Dakota, Vermont, and West Virginia-presently have no approved MTPs. An important treatment issue is determining the appropriate treatment for each patient or population group. Originally, substance abuse treatment modalities were designed to treat a specific type of addiction or patient population. For example, MTPs were specifically designed as outpatient treatment for individuals with extended dependence on opioids (usually heroin); therapeutic communities
(TCs) were designed for drug-dependent individuals with major impairments and social deficits, including histories of criminal behavior; outpatient nonpharmacotherapeutic programs were developed for individuals with less serious social issues and nonopioid addictions; and chemical dependency residential programs were developed as treatment for alcoholism (Gerstein and Harwood 1990).

Increasingly, treatment programs are admitting addicts who do not fit neatly into a category or a precise modality. Concurrent opioid-stimulant dependency as well as related social, medical, and funding issues present challenging management problems for the different treatment modalities. Within each modality, treatment for concurrent opioid-stimulant dependency may require an increased intensity of treatment structure. Selwyn and O’Connor (1992) found that issues such as addiction severity, medical status, psychiatric status, treatment history, and social support network need to be carefully examined at the time of admission. If a particular treatment modality is not capable of treating the needs of a specific patient, efforts should be made to refer the patient to an appropriate setting. (For a discussion of appropriate levels of care, see appendix B.)

However, because of the diverse needs of patients entering treatment, programs are becoming multidisciplinary. Treatment teams at inpatient, outpatient, and residential programs are often finding it necessary to include a wide range of highly specialized professionals, such as addictionists, psychiatrists, psychologists, nurses, and social workers (Barthwell and Gastfriend 1993).

The Needs of Minority Patients

It has been suggested that addiction among African-Americans and other minority groups may occur for a number of reasons; therefore, their treatment needs may also differ (Brown and Alterman 1992). National Drug and Alcoholism Treatment Utilization Survey (NDATUS) statistics show that over one third of all clients in treatment for substance abuse are African-Americans and Hispanic-Americans. Further, African-Americans and Hispanic-Americans show a higher percentage of injecting drug users within their respective groups (NIDA 1993), thus placing these populations at special risk for developing HIV/AIDS, STDs, tuberculosis, and hepatitis.

Many cultural and historical factors distinguish minorities from the rest of American society. These factors, along with social, political, and economic realities, have significantly influenced the lives of minority Americans (Grace 1992). For example, in the African-American community, four systems have been major vehicles for providing cultural focus, cultural patterning, and social development: the church, community, neighborhood, and social organizations (Butler 1992). Far too often, however, the lack of real knowledge and awareness of the varying lifestyle patterns and needs of minority populations has resulted in inadequate service delivery, lack of compliance with expected norms and standards of behavior, and inconsistent or poor responses to caregivers and care facilities providing treatment services.

The reality of minority groups includes racism, segregation, poverty, and discrimination. These may result in low educational achievement, unemployment and underemployment,
homelessness, excess or premature mortality and morbidity, crime, and widespread substance abuse, which is often used as a way to cope with depression and frustration.

The proliferation of these social problems has resulted in the widespread breakdown of "traditional values" and family and community life. Theories have stated that with the breakdown of one's support structure and the lack of opportunity and fulfillment of basic needs, many Americans, particularly minorities, have turned to substance abuse as a substitute (Brown et al. 1992).

Important differences often exist among individuals within minority groups. Ruiz and Langrod (1992) note that Hispanic-Americans may differ considerably depending upon their country of origin. These differences may include socially acceptable behavior, etiquette, family rituals, gestures, hospitality, and religion. In general, however, it is found that the family is of utmost importance to Hispanic-Americans. Each member of the family plays a unique role in family dynamics, and the use of positive family resources when treating Hispanic-American addicts would enhance quality care. However, effective treatment must also deal with real-life social issues that confront minorities, such as poverty, racism, discrimination, and the feeling of powerlessness.

Native Americans have long been using culture and rituals as healing methods for alcoholism. These methods include shamanistic ceremonies, community "sings," herbal medication, and sweat lodges. A key factor in Native American programs has also been the inclusion of Native American staff who can serve as role models for recovering persons (Westermeyer 1992).

The research of Ruiz and Langrod (1992) shows that the promotion of culture and relevant belief systems can play a positive role in the treatment process and that efforts should be focused on creating and promoting culturally appropriate services. They recommend that the design, content, and staffing patterns of treatment programs respond to the values, belief systems, and behaviors of the particular cultural group. The presence of a number of cultural groups in one program and tight funding, however, may make such staffing and programming difficult to achieve.

**Summary**

The steady increase of cocaine use among opioid addicts since the 1980s has caused treatment providers to develop interventions that meet the needs of these concurrently dependent patients. Although the increase corresponds to a general escalation in cocaine use throughout the United States, the opioid abuser is at special risk because the route of administration is often injection, increasing the risk for hepatitis and HIV.

A major challenge for MTPs is to work with patients to reduce their cocaine use and to address the social, psychological, and physiological problems associated with cocaine dependency. Several behavioral interventions have been implemented by programs attempting to treat this population, with varying degrees of success. Additional research is needed to determine the most effective treatment modalities.
Patients concurrently dependent on opioids and cocaine experience more severe medical problems, both physiological and psychological, than individuals addicted to cocaine or heroin alone. Antisocial personality disorder is overrepresented among cocaine-abusing opioid patients, and sexual dysfunction is often a complicating factor that needs to be addressed in treatment.

Escalating criminal activity, particularly theft and drug dealing, is directly related to the increase of cocaine use among methadone patients. The decline of urban neighborhoods, including the loss of affordable housing and middle class populations, abandonment of buildings, increased violence, and homelessness are often also related to the presence of drugs in the community.

Finally, treatment of concurrently dependent patients must take into account the individual’s ethnic or racial heritage. Minority groups often must deal with racism, segregation, poverty, and discrimination, all factors that affect substance abuse treatment. Yet the cultural strengths of minority groups-for example, the church and social organizations of the African-American community and the strong family dynamics of the Hispanic community-can be tapped to enhance a comprehensive treatment program.
Screening, admission, and assessment can be viewed as stages in a 3-4-week process, during which increasingly detailed information is gradually gathered. For patients who do not meet Federal eligibility criteria for methadone services, staff should assess the need for acute services and promptly make appropriate referrals. Crisis situations call for a rapid assessment and appropriate response.

Screening

The screening (or intake) process serves as the foundation for ongoing clinical intervention, and within this context, provides the following:

- Stabilization-immediate assistance with a crisis situation
- Eligibility-State criteria may be more restrictive than Federal criteria
- Treatment alliance-discussion of patient and program responsibilities
- Initial evaluation-formulation of the presenting problems, including prioritization
- Initial treatment plan

Patients typically present themselves for treatment because they are in trouble; assisting them with their crises is the best way to establish an initial treatment alliance. The applicant may feel "bottomed out." This feeling may be behaviorally expressed by passivity, suggestibility, uncertainty about the meaning of what has happened, and a degree of demoralization. The substance abuser may also be in a state of denial or ambivalence about the need for treatment (Senay 1992). Given these variables, information obtained during the initial screening process may be incomplete or unreliable.

The individual's first contact with a substance abuse treatment program begins the treatment alliance and the transition from addict to patient. In the initial contact with a potential new patient, the staff member conducting the process may be met by an aloof, hostile, demanding, or drug-influenced individual. The patient may be apprehensive, distrustful, and resistant, especially if he or she has entered the program through a mandatory referral such as the child welfare or criminal justice system.
Interviewing Techniques

The manner in which the patient experiences the screening process will likely influence his or her attitudes, concerns, and motivations throughout treatment (Langrod 1993). To facilitate a positive experience, the screening interviewer may do the following:

- Allow the patient a few minutes to give the history without intrusion.
- If the patient does not take the initiative, ask "What brings you to see me?" or "Tell me why you're here."
- Listen to the patient with the goal of learning how the patient defines the problem.
- After the patient has had some free time to speak, move to a more active, controlling mode of interviewing.
- Ask questions subtly, in a variety of ways and at different times. This method will be more likely to elicit accurate responses.
- Communicate with the individual in a supportive and nonjudgmental manner that conveys acceptance and a desire to help. Explain that all information acquired is held in confidence and that the applicant's privacy is protected by Federal law. This statement will help to relieve the applicant's apprehension and enhance rapport.

These individuals also may be in physical distress, for example, suffering from a cocaine crash or heroin withdrawal (Gold 1992). They may have HIV and/or AIDS, TB, STDs, or other infectious diseases.

Strategies for the Screening Process

When a patient presents for treatment at an MTP, the interviewer may use the following strategies:

- Immediately provide crisis intervention services to stabilize the patient.
- Make a preliminary determination of the patient's qualifications for treatment (see the section below).
- If the patient is qualified for the program and experiences uncomfortable withdrawal symptoms, quickly move the patient into the admission process and, if necessary, ensure that medication is prescribed.
- Begin helping the individual to identify the problem, and offer hope through recovery.
- Conduct the interview with the expectation that more information will be collected over time. Screening should be viewed as the first part of a process that occurs in stages.
- Use the first meeting with the patient as an opportunity to establish rapport.

Need for Privacy

The program's physical surroundings should be attractive and welcoming and allow for privacy during the screening interview (Langrod 1993). Privacy is especially important because questions raised during the screening process (and later on during the admission and assessment
processes) may evoke feelings of shame or guilt, cause fears of possible legal consequences, or cause other emotions best managed by both the patient and the interviewer in a private setting (Senay 1992).

**Determining Patient Eligibility for Treatment**

Drug users who are primarily regular users of cocaine and not physiologically dependent on opioids are generally neither therapeutically nor legally appropriate for admission to MTPs. (Exceptions are individuals physically addicted to opioids but not currently using due to enforced abstinence, for example, because of incarceration.) They should be referred to treatment centers that treat primary cocaine problems. Patient eligibility for a methadone treatment program must comply with Federal and State requirements (21 CFR, § 291.505). (Please refer to the State Methadone Treatment Guidelines [CSAT 1993b] for Federal and State requirements not discussed in the following pages.)

It is important to remember that Federal regulations on eligibility represent the minimum criteria for admission. Many States develop and implement criteria more stringent than those required by the Federal Government. Providers need to be aware of their respective States' regulations.

**Initial Data Collection**

In determining eligibility, the screening process for concurrent addiction to opioids and cocaine should elicit the following data:

- Applicant identification (e.g., driver's license, passport, birth certificate, Social Security card, Medicaid card)
- Personal and demographic information on employment, education, legal involvement, military background, family history, financial status, psychiatric treatment, and medical background, including current prescribed and over-the-counter medications
- Likelihood of incarceration in the near future, especially since many correctional facilities rapidly taper or abruptly stop methadone maintenance treatment
- A preliminary determination of the applicant's current degree of dependence on all drugs, including route(s) of administration, information on all other substances used, length of time used, and frequency and amount of use
- A determination of the applicant's mental status, including psychosis or the potential risk of violence or suicide (see page 16 for risk factors for violence and suicide)
- The degree to which the applicant engages in high-risk HIV-related behavior (applicant should be asked if he or she has been tested for HIV)
- History of past substance abuse and any concomitant treatment, including dates of treatment, use of secondary substances while in treatment, and reasons for discharge
- The precipitating factor for seeking the current treatment and whether treatment options and requirements for the chosen program are understood
- Drug screening results, using a urine sample (21 CFR, § 291.505 (d)(2)) and an alcohol breathalyzer test
Federal Regulations on Eligibility

- A person may be admitted as a patient for a maintenance program only if a program physician determines that the person is currently physiologically dependent upon a narcotic drug and became physiologically dependent at least 1 year before admission for maintenance treatment.
- A 1-year history of addiction means that an applicant for admission to a maintenance program was physiologically addicted to a narcotic at a time at least 1 year before admission to a program and was addicted, continuously or episodically, for most of the year immediately before admission to a program.
- The person responsible for the program shall ensure that: A patient voluntarily chooses to participate in a program; all relevant facts concerning the use of the narcotic drug used by the program are clearly and adequately explained to the patient; and all patients, with full knowledge and understanding of its contents, sign the "Consent to Methadone Treatment" Form FDA-2635.
- A person under 18 years of age is required to have had two documented attempts at short-term detoxification or drug-free treatment to be eligible for maintenance treatment. No person under 18 years of age may be admitted to a maintenance treatment program unless a parent, legal guardian, or responsible adult designated by the State authority completes and signs consent form, Form FDA-2635 "Consent to Methadone Treatment."

*SOURCE: 21 CFR, § 291.505(d)(1)*

Exceptions to Minimum Admissions Criteria

- A person who has resided in a penal or chronic care institution for 1 month or longer may be admitted to maintenance treatment within 14 days before release or discharge, or within 6 months after release from such an institution without documented evidence to support findings of physiological dependence, provided the person would have been eligible for admission before he or she was incarcerated or institutionalized and, in the reasonable clinical judgement of a program physician, treatment is medically justified.
- Under certain circumstances, a patient who has been treated and later voluntarily detoxified from maintenance treatment may be readmitted to maintenance treatment, without evidence to support findings of current physiologic dependence, up to 2 years after discharge, if the program attended is able to document prior narcotic drug maintenance of 6 months or more, and the admitting program physician, in his or her reasonable clinical judgement, finds readmission to maintenance to be medically justified.
- If in the responsible clinical judgement of the medical director a particular patient would not benefit from treatment with a narcotic drug, the patient may be refused such treatment even if the patient meets the admission standards.

*SOURCE: 21 CFR, § 291.505(d)(1)*

Exceptions to Minimum Admissions Criteria for Pregnant Patients

- Pregnant patients, regardless of age, who have had a documented narcotic dependency in the
past and who may return to narcotic dependency, with all its attendant dangers during pregnancy, may be placed on a maintenance regimen. For such patients, evidence of current physiological dependence on narcotic drugs is not needed if a program physician certifies the pregnancy and, in his or her reasonable clinical judgement, finds treatment to be medically justified.

- Pregnant patients are required to be given the opportunity for prenatal care either by the program or by referral to appropriate health care providers. If a program cannot provide direct prenatal care for pregnant patients in treatment, the program shall establish a system for informing the patients of the publicly or privately funded prenatal care opportunities available. If there are no publicly funded prenatal referral opportunities and the program cannot provide such services or the patient cannot afford them or refuses them, then the treatment program shall, at a minimum, offer her basic prenatal instruction on maternal, physical, and dietary care as part of its counseling service.

- Within 3 months after termination of pregnancy, the program shall enter an evaluation of the patient’s treatment state into her record and state whether she should remain in the maintenance program or be detoxified.

- The program sponsor shall ensure that each female patient is fully informed of the possible risks to her or her unborn child from continued use of illicit drugs and from the use of or withdrawal from a narcotic drug administered or dispensed by the program in maintenance or detoxification treatment.

**SOURCE:** 21 CFR, § 291.505(d)(1)

**Preliminary Assessment and Treatment Plan**

If treatment staff have collected screening data and determined that an applicant is eligible for treatment, they should make an initial assessment and recommend the applicant for admission. (If the applicant is not eligible, staff should provide a referral to a more appropriate program.) If the applicant accepts admission, an initial assessment and preliminary treatment plan should be developed. The plan should briefly state the patient's primary problem, the immediate goal, and the action plan to begin treatment services.

**Admission**

The admission process includes a medical evaluation. Because MTPs are an important provider of initial medical services to heroin addicts, Kosten and coworkers (1987b) suggest that careful medical evaluations on admission are necessary and that the development of primary medical care facilities within or closely associated with drug treatment programs is justified. A substance abuse history should also be completed during the admission process.

A medical evaluation is especially important for narcotic addicts and multidrug users since these patients may have many medical problems. While a medical history may be completed by any staff person trained in the medical aspects of addiction, a physician must decide whether to admit a patient to a narcotic treatment program, and only a physician can order medications.
Medical History

A complete medical history typically examines current information to determine whether the patient has any chronic or acute medical conditions such as diabetes, renal diseases, hepatitis, HIV, TB, STDs and other infectious diseases, sickle-cell trait or anemia, chronic cardiopulmonary disease, or pregnancy. The history should document any treatments that the patient has had or is currently receiving for any medical condition, including any medications the patient may currently be taking. For women, the history should include documentation of any previous pregnancies, types of delivery, pregnancy complications, and current involvement with prenatal care. The history should document alcohol and drug use during and prior to any pregnancies and any incidence of sudden infant death syndrome (SIDS). A family health history should be obtained.

Elements of the Medical Evaluation

The medical evaluation should include the following:

- A complete medical history
- A complete physical exam
- A brief psychiatric evaluation, with attention to suicide risk, violence risk, and psychosis
- Laboratory tests as appropriate or required
  - HIV testing\(^1\)
  - Liver function tests
  - TB testing\(^2\)
  - Syphilis tests\(^1,2\)
  - Tests for other STDs, such as chlamydia
  - Pregnancy test
- A determination of current substance dependence
  - Objective signs of withdrawal on examination
  - Breathalyzer
  - Physical examination
  - Narcan challenge (if indicated)
  - Prior treatment history
- A history of HIV testing and risk assessment
- Collection of information on current medications the patient is taking
- A determination of treatment eligibility and treatment options

\(^1\)False positives are not uncommon. Confirmatory tests may be required.

\(^2\)Required by Federal regulations

Physical Examination

A complete physical examination conducted by medical staff ordinarily includes examination of all major systems. As required by Federal regulation (21 CFR, § 291.505 (d)(3)(i)), narcotic
treatment programs must document physical examination of organ systems for possibilities of infectious disease; pulmonary, liver, and cardiac abnormalities; dermatologic sequelae of addiction; vital signs; general appearance-head, ears, nose, throat, chest, abdomen, extremities, and skin; evidence of physical drug dependence; and the physician's clinical judgment of physical dependence. Patients should be examined for symptoms of active TB, including cough, fever, night sweats, weight loss, and fatigue.

**Psychiatric Evaluation**

The physical examination can be useful in understanding psychiatric symptomatology (e.g., psychiatric symptomatology related to a diagnosis of AIDS). An initial psychiatric evaluation should be completed, beginning with a determination of the potential risk of suicide or violence or the presence of psychosis. A full evaluation should then proceed only after acute withdrawal and lingering withdrawal effects have passed (Dackis and Gold 1992). Another evaluation should occur 6 months later. When applicable, patients should be told that their mental state may be the result of cocaine or other drug use.

Staff should also assess risk factors for women who may be subject to past or current physical or emotional abuse.

**Laboratory Tests**

Federal regulation requires narcotic treatment programs to conduct a drug screening test or analysis, a serological test for syphilis, and a tuberculin skin test (21 CFR, § 291.505 (d)(3)(i)). Given the fact that some drugs are extensively metabolized and quickly excreted from the body, it is important to use analytic procedures that give the highest level of specificity when screening for the presence of drugs. For patients concurrently dependent on opioids and cocaine, enzyme immunoassay or radioimmunoassay urine screening techniques have been found to be effective because they have high sensitivity levels (Verebey 1992). Detecting cocaine can be particularly difficult because the half-life of cocaine is only about 1 hour, and unchanged cocaine is detectable in urine for only 12-18 hours after use. Screening for cocaine is therefore most effective when conducted within hours of use or if the patient is suspected to be under the influence of cocaine at the time of the sample collection. Given cocaine's short half-life, medical staff should routinely test for the presence of benzoylecgonine, a metabolite of cocaine that may be detected in the urine for at least 24-48 hours after the last use. Since cocaine use can go undetected on admission, patients should be screened frequently during the assessment process.

**TB Testing**

The Centers for Disease Control and Prevention recommends the use of the Mantoux TB test on admission and annually thereafter unless the patient is known to be purified protein derivative (PPD) positive (10-millimeter induration or more for HIV-negative persons and 5-millimeter induration for HIV-positive persons or those at risk of HIV infection). Some HIV-positive patients may have a false negative reading on a PPD test because immunocompromised persons are frequently anergic. For such cases, anergy testing can be used to screen out false negative PPD tests. All patients with a positive PPD test should receive a chest x-ray. Care should be
taken to assist patients placed on isoniazid (INH) prophylaxis, in complying with daily doses. (See appendix D for a sample TB/PPD testing form and supplementary questions.)

**Risk Factors for Violence**

- Stimulant or alcohol intoxication
- Psychotic states, such as paranoia (drug induced or otherwise)
- Previous history of violent behaviors
- Availability of weapons
- History of childhood abuse

**To Reduce the Risk**

- Ensure availability of backup help for management of those who are aggressive or psychotic
- Remove objects that could be used as weapons, including items of clothing
- Ensure that the door is readily accessible to both client and interviewer; however, the client should not be allowed to get between the interviewer and the door
- Stay calm
- Face the client while maintaining a discreet distance
- Discreetly ensure that the client does not have a weapon

**Hospitalization Procedure in Your Community**

- Determine who can hospitalize patients
- Have available phone numbers of special crisis units or services (other than 911)
- Know the criteria for hospitalization
- Know the rules concerning the duty to warn

**Sources:** Levy 1988; Marzuk and Mann 1988

**Risk Factors for Suicide**

- Age: 20–30
- Sex: Male
- Concurrent alcohol abuse and use of multiple substances, especially opioids, cocaine, amphetamine, sedatives
- Chronic use, including history of drug overdoses
- Stimulant withdrawal
- Comorbid psychiatric symptoms, especially depression, borderline personality disorder, psychoses, exhaustion
- Recent (within 6 weeks) significant loss
- Childhood history of hyperactivity, incorrigibility, family financial difficulties, family suicidal behaviors, abuse, living in foster homes
- Family history of depression, suicide, alcoholism
Severe chronic pain (possibly)

Ask About

- Suicidal thoughts or behaviors
- Availability of a means: drugs, weapons
- Risk-taking behaviors
- Accidents
- Legal difficulties
- Escalating patterns of substance abuse
- Recent losses
- Previous suicide attempts
- Comorbid syndromes, such as depression, psychosis, anxiety states, personality disorders
- Family history

SOURCES: Levy 1988; Marzuk and Mann 1988

Hepatitis Testing

Hepatitis is one of many possible medical complications that can result from injecting heroin or cocaine. Many injecting drug users can have acute hepatitis infection without serologic evidence of hepatitis A or B. Recent data demonstrate that rates of hepatitis C are high among injecting drug users. Hepatitis C is described as having a chronic indolent course (Donahue et al., 1991). A simple blood test for antibodies against hepatitis C is now available. However, a positive result does not indicate that the patient is currently infected with the virus. It shows only that antibodies have been developed as a result of previous or current exposure. Interferon is being investigated as a promising treatment for hepatitis C, but it can have significant side effects and is very expensive.

HIV Testing

Because of the high rate of HIV risk behaviors associated with opioid addiction, it is especially important for the physician to talk with applicants about safer sex and needle use practices. Given the increasing impact of AIDS on narcotic-dependent patients, medical staff should carefully consider counseling and testing patients for HIV. It is recommended that the physician discuss medical aspects of HIV infections and ask the patient the following questions:

1. Are you aware of your HIV status?
2. If yes, are you willing to share this information with us?
3. If yes, when were you tested?
4. Would you like to be tested or to have another test?

In addition, the physician should ask the patient for a complete history of any HIV testing that has been performed.
All staff providing HIV testing and counseling services should be educated about HIV/AIDS and able to provide pretest and posttest counseling (see chapter 4) and perform a risk assessment of the patients who enter the treatment center.

Determining Current Dependence

A patient's current dependence on opioids or stimulants or both can be determined by medical staff through a history, an examination, and urine screening. The history should determine the length of time the patient has been dependent on narcotics or stimulants. A sample form for taking this history is shown in figure 1. The physical examination should include examination for the presence of clinical signs of addiction such as needle marks, constricted or dilated pupils, and a state of sedation. Medical staff should check for reported and observable withdrawal symptoms such as yawning, rhinorrhea, lacrimation, chills, restlessness, irritability, perspiration, piloerection, nausea, and diarrhea.

If the physician is not certain of the applicant's medical eligibility for admission to an MTP (that is, whether the patient is physiologically dependent on opioids), it is sometimes appropriate to implement a Narcan challenge. This test induces symptoms of withdrawal and is often controversial. To give a Narcan challenge, the following criteria should be met:

- No medical contraindications (for example, pregnancy, hypertension, acute opioid withdrawal)
- No history of methadone treatment
- No previous opioid detoxification with documented withdrawal

Narcan may be administered using the following method (Ling and Wesson 1990):

- Place 0.8 mg of naloxone (Narcan) in a syringe, and administer 0.2 mg intravenously or intramuscularly.
- Observe the patient for 30 seconds for signs of withdrawal.
- If you do not observe signs of withdrawal, administer the remaining 0.6 mg of naloxone and observe the patient for 20 minutes.
- During the 20-minute observation period, serially record vital signs and symptoms and signs of withdrawal.
- It may be helpful to develop a worksheet for recording these observations and quantifying the results.
- If a patient shows even minor symptoms of withdrawal, he or she has some degree of opioid tolerance.

Determining current dependence on cocaine can be more difficult because clearly defined withdrawal symptoms may not be present. In fact, the presence of a cocaine abstinence syndrome has been debated. Gawin and Kleber (1986) described a three-phase process in outpatients lasting 1-10 weeks. The phases include "crash," withdrawal, and extinction. During phase 1, the patient experiences exhaustion, intense depression, agitation, anxiety, hypersomnia, hyperphagia, and craving for cocaine. In phase 2, the patient has no craving, but the craving may reemerge, bringing on symptoms of anhedonia, anergia, and anxiety. During phase 3, which can last indefinitely, the patient's mood returns to normal but the patient experiences recurrent craving, typically in response to cues.
Inpatient studies have not found such clearly defined phases of withdrawal. Instead, symptoms were found to be very acute in the first 24 hours and associated with intense depression. Mood state, cravings, and sleep problems gradually returned to normal in approximately 4 weeks (Weddington 1991). The difference between these findings may relate to the effects of cocaine availability on craving, such availability and cues being much greater for outpatients.

**Treatment Eligibility and Treatment Options**

The admitting physician is responsible for recommending the treatment disposition and determining admission. The physician should make a clinical judgment about the appropriate level of care on the basis of the patient's individual needs. For narcotic treatment services, the physician must document current dependence on opioids and a 1-year history of physiological dependence prior to admission (21 CFR, § 291.505 (d)(1)(i)(A)).

Langrod (1993) recommends that medical staff fully explain available treatment options to the patient, including alternatives for less intensive and restrictive treatment, the chances for success or failure, the benefits and the risks of treatment, and the treatment process. Such an explanation should be based on the results of the medical evaluation, and medical staff should ensure that the best possible treatment option is being recommended. The physician is also responsible for explaining the pharmacological properties of any medication to be used for treatment or maintenance.

The Consensus Panel recognizes that some communities may not have extensive resources. However, if there are no facilities elsewhere in the community, the MTP itself should consider developing programs to meet the needs of patients who need alternative treatment. Program administrators should consult with appropriate State regulatory agencies, financing agencies, and community groups before opening a new service.

**Assessment**

The assessment process may be conceptualized as taking place in three stages. First, the initial screening provides an opportunity to establish eligibility and, perhaps more importantly, to assist the applicant with concomitant psychosocial crises. This kind of help facilitates a working alliance. Second, indepth evaluation is based on subsequent interviews once the patient has entered treatment. More detailed information is collected over a 3-4-week period. This information permits clinicians to formulate a comprehensive treatment plan. Third, an ongoing evaluation process measures patient progress, updates the treatment plan, and signals the need for relapse prevention.

**Initial Screening and Crisis Intervention**

Although initial screening interviews are often devoted to collecting eligibility data for methadone treatment, it is important not to overlook this initial contact as an opportunity to negotiate and establish an effective treatment alliance. Actively assisting the patient with the psychosocial crisis at hand makes the treatment system appear more helpful and less
bureaucratic. Many patients who do not qualify for methadone maintenance nonetheless have life crises that require prompt assistance.

**Indepth Evaluation**

A conscientious and individualized assessment guides treatment planning decisions toward effectively matching the patient to the most appropriate treatment interventions (Wallace 1992). The assessment process should go over details not covered in the initial screening interview. Many treatment centers are increasingly turning to the use of standardized diagnostic assessment instruments such as the Addiction Severity Index (ASI). Such instruments can be used periodically throughout treatment to measure patient progress and to assist in matching specific treatment interventions to specific kinds of problems.

Indepth interviews elicit greater detail about salient patient characteristics revealed during the initial interview and are fundamental in developing a comprehensive treatment plan. This workup commonly includes a detailed substance abuse history, a detailed psychosocial history, and a thorough psychiatric history. The patient also should be asked if he or she has been tested for HIV. Additional elements to be included may depend on the patient's background (e.g., education, employment, legal involvement, general health) and the particular treatment modality and target population.

In assessing the level of a patient's concurrent dependence on opioids and cocaine, it is important to conduct frequent urine screens for cocaine. Cocaine and cocaine metabolites are cleared from the bloodstream more rapidly than most opioids. Resources permitting, urine screens should occur two times per week. A functional analysis of cocaine use should be done to identify the circumstances of use (where, when, with whom, and relapse triggers). It is important to involve family members and other significant relations of the patient in the evaluation to help diminish defensive behaviors such as denial, isolation, and compartmentalization (Beeder and Millman 1992). The clinician should also determine whether the patient's family and friends also use drugs.

All seven domains of the problem areas identified by the ASI (described in the section on diagnostic assessment instruments later in this chapter) should be addressed:

- **Medical status**-Questions should relate to hospitalizations, chronic medical problems, prescribed medications, frequency and severity of recent medical problems, pension status (for physical disability), and the patient's view of the desirability of treatment.
- **Employment and support status**-Questions should explore the extent and type of education; automobile use; employment history, patterns, and salary; financial support and responsibilities; and employment problems and the patient's attitude toward those problems.
- **Alcohol and drug use (two domains)**-Questions should be asked about major substances used; frequency, duration, and last use of substances; detoxification or treatment experience; abstinence periods; and the patient's attitude toward the severity of the problem.
- **Legal status**-Questions should relate to type of admission (e.g., through the criminal justice system); criminal arrests, charges, and convictions; types of crime(s) involved; probation or parole status; incarcerations; illegal activities in the past 30 days; and the patient's view of the severity of his or her legal problems.
Family and social relationships—Questions should be asked about marital status; living arrangements; use of leisure time (with friends and family); patient satisfaction with marital and living status; problems with family members, friends, significant others, neighbors and coworkers; and the patient’s view of the severity of these problems.

Psychiatric status—Questions should be asked about the presence of specific mental states; hospitalizations; pension status (for psychiatric disability); recent psychological or emotional problems; and the patient’s view of the severity of any psychiatric problems and the need for treatment.

Since opioid abusers are at risk for abusing cocaine and cocaine abusers are at high risk for abusing opioids, the temporal relationship of the other drug use (whether heroin or cocaine is the primary drug of choice) should be identified (Barthwell and Gastfriend 1993). Primary cocaine addicts will tend to use cocaine first and then heroin to relieve the adverse agitation or "crash" effects. Primary heroin addicts tend not to use cocaine prior to a heroin fix because the cocaine agitation may be confused with opioid withdrawal.

In complex cases with psychiatric disorders, it is important to try to assess whether substance abuse preceded or followed psychiatric symptoms, although this distinction is admittedly difficult to make in many cases. Substance abuse may mimic psychiatric disorders and in some cases provoke them. Depression, for example, is a very common outcome of alcoholism, sedative abuse, and stimulant abuse. Paranoia may be provoked by the use of amphetamine or cocaine.

Conversely, patients with distressing psychiatric symptoms often seek to self-medicate. This experience appears to be especially true for individuals with attention deficit disorder or manic symptoms. Depressed individuals often seek out a variety of drugs, which they hope will ameliorate their dysphoria. The following section gives an overview of pertinent elements to include in the substance abuse history, psychiatric examination, and psychosocial history to ensure that the indepth interviews and assessments are comprehensive.

Substance Abuse History

The substance abuse history should include information about the following areas:

- Precipitating events leading to treatment
- Prior treatment (dates, modalities, outcomes)
- Onset of drug use, frequency of drug use, and duration and pattern of use (occasional versus regular). Include the period of heaviest use and the pattern of use within the past 3 weeks.
- Periods of abstinence (number, duration, and circumstances)
- Circumstances or events leading to relapse
- Desired psychoactive effects; subjective and objective effects on the patient's physical, psychological, and emotional states; symptomatology of use of the drug for the patient (see appendix E for multidrug abuse patterns and their desired effects)
- Assessment of the changing pattern of the patient's substance abuse, withdrawal symptomatology, and medical sequelae
- List of all psychoactive drug(s) used and determination of age of onset, pattern of use, and current status
• Extent of social deterioration or isolation to assist in comprehending the interpersonal losses and the legal, educational, medical, and employment consequences the patient is facing (Beeder and Millman 1992).

If the patient's use of various drugs from major drug classes has not been addressed during the screening process, this topic should be reviewed while taking the history. The commonly recognized major drug categories include alcohol and other depressants, cannabis, opioids, stimulants, hallucinogens, phencyclidine (PCP), inhalants, nicotine, caffeine, and certain over-the-counter drugs with sedative effects. This core set may need to be supplemented by local fad drugs. The period of heaviest lifetime use may provide clues to the patient's motivation for use (Senay 1992).

In the case of opioids and cocaine, it is important to learn the patient's drug use pattern during the past month because, without recent drug use, the possibility of physical drug withdrawal is unlikely. While not lethal, withdrawal from opioids and cocaine may be marked by depression or anxiety.

**Psychosocial History**

The psychosocial history should describe the relevant dynamics of the patient's functioning prior to the onset of illness (e.g., depression or anxiety). Make a point of identifying and supporting the patient's specific strengths (a good job, strong family ties, sensitivity, etc.) to provide the basis for a focused, individualized, and effective treatment plan. Information gained from the psychosocial history is important because addiction-related problems may be uncovered in psychosocial areas. The following elements may be explored to obtain a psychosocial history:

- Patient's family and other relationships
- Living arrangements (past and present)
- Sexual orientation
- Sexual history
- History of abuse (physical, emotional, and sexual)
- Patient's ability to manage money
- Recreational and leisure time activities
- Patient's assets and liabilities

**Psychiatric Examination**

The purpose of the psychiatric examination is to look for threshold criteria of disorders requiring emergency intervention or referral to a specialist. This evaluation should occur in three stages analogous to the previously described stages of substance abuse assessment:

- **Immediate assessment of psychiatric status (suicidal or homicidal ideation, psychotic behavior, mental disorganization, depression)**- This assessment requires some familiarity with the components of a mental status examination (general appearance, behavior, and speech; stream of thought, thought content, and mental capacity; mood and affect; and judgment and insight).
• **Indepth diagnostic evaluation 4 or more weeks later, after the patient has stabilized**—Behavior of patients under the influence of drugs often mimics symptoms of psychiatric disorders such as depression, anxiety, paranoia, and mania (as does that of patients in withdrawal from drugs).

• **Ongoing psychiatric assessment**—The most common psychiatric disorders in this treatment population are depression, anxiety, and antisocial behavior; the latter is especially difficult to disentangle from the antisocial activities inherent in the use of illicit drugs.

During the psychiatric examination, the following points are important to consider: (1) The psychiatric disorder may be a consequence of the addiction, (2) substances may be used for self-medication of underlying psychiatric symptoms, and (3) addiction and psychiatric illness may develop independently and later impact on each other (Meyer 1986; Senay 1992). The prognosis, course of treatment, and clinical approach will differ depending on which of these categories the patient falls into (Dackis and Gold 1992). The patient's presenting complaints should guide the order of the interviewer's questions about drug abuse symptoms versus DSM-IV disorders. What is essential, however, is that both spheres are equally and adequately explored (Senay 1992).

Indicators of psychopathology can also be sought in the specific pattern of reported drug use, choice of drug(s), and positive and negative effects of the drug(s) on the patient. For instance, a borderline patient may describe drug taking as a disorganized, chaotic pattern while an obsessive-compulsive patient may take the drug(s) of choice in a carefully prescribed pattern (Beeder and Millman 1992). Psychiatric symptoms may be the result of agonist effects of drugs and, therefore, may not be a true psychiatric comorbidity. However, psychiatric symptoms occurring following at least a 2-3-week period of abstinence are reliable indicators of psychiatric comorbidity (Beeder and Millman 1992; Dackis and Gold 1992).

While antisocial personality disorder is often present among substance abusers, the diagnosis should be made with caution. Care should be taken that antisocial personality disorder, which requires a history of problems before the age of 15, is not confused with adult antisocial behavior, a disorder that frequently develops as a result of substance abuse (American Psychiatric Association 1987).

Substance abusers often have great difficulty identifying and naming feelings. This inability to identify feelings (alexithymia) can make the assessment of anxiety, depression, and sadness more difficult (Dackis and Gold 1992). Krystal and Raskin (1970) have described these patients as "concrete" and "flat." They may appear depressed or unimaginative. They may be subject to internal experiences that are primitive, poorly differentiated, and difficult to articulate. It is important to learn whether these dysphoric experiences lead to relapse. If so, relapse prevention work may include helping these patients to identify, differentiate, and verbalize poorly understood feelings.

Baseline sexual behavior, with an emphasis on changes secondary to cocaine use, should be explored. To elicit a patient's sexual history, the AIDS Initial Assessment Questionnaire (AIA) can be consulted to help formulate questions that should be asked. Typical questions suggested by the AIA include the following:

- How many people have you had sex with in the past 6 months?
- Is your sex partner male? Female?
- Has he or she injected drugs in the past 6 months?
- When you had sex with your partner in the past 6 months, how often did you use a condom (latex protection)?
- If you did not use a condom (latex protection), is it because you feel you cannot give AIDS to your partner? Get AIDS from your partner? Is it because your partner may feel you are accusing him or her of having AIDS?
- If you did not use a condom (latex protection) in the past 6 months, is it because your partner does not like it? Is it because you are afraid of getting hurt or beat up by your partner? Is it because you or your partner wants to have a child?

The AIA questionnaire also includes questions for patients with multiple sex partners and questions about specific acts that may occur in male-female, male-male, and female-female relationships.

**Diagnostic Assessment Instruments**

In addition to the psychiatric examination, diagnostic assessment instruments can be useful in gathering data ([Beeder and Millman 1992](#)). Although questionnaires and diagnostic instruments are not essential for an accurate diagnosis and effective treatment planning, some clinicians use such tools to supplement interview information. Instruments used alone are detrimental because some instruments assess for only one drug class and may miss local fads, and the patient may not experience the interviewer as interested and responsive to his or her needs ([Senay 1992](#)). The following is a brief description of some of the more widely recognized and used instruments. ([Refer to appendix F](#) for information on ordering these instruments.)

**Comprehensive Assessment Tools**

*Addiction Severity Index (ASI)*

The ASI is a research instrument widely used to evaluate the overall severity of a patient's addiction disorder and the extent to which patients exhibit significant change over time. It is designed to evaluate seven key areas of problem severity. These domains are rated on 9-point scales, with the higher numbers signifying greater severity. The ASI is highly regarded and extremely well established as the most important addiction assessment available. It must be administered to the patient by a trained staff person and takes approximately 45 minutes.

*Structured Clinical Interview (SCID)*

This clinical interview is used to assess psychiatric and substance abuse-related disorders. It guides an experienced mental health clinician through all of the major mood, anxiety, psychotic, and substance use disorders. An advantage of SCID is that the interview is modular. It can be shortened by focusing only on the diagnoses of interest. The interview provides very reliable DSM-IV-R diagnoses, which, along with Research Diagnostic Criteria (RDC), can be considered the "gold standard" for psychiatric diagnosis. The SCID takes an hour or more to administer and requires a highly skilled interviewer with prior mental health specialty training. It is primarily for use in clinical research settings that have sufficient resources to support indepth testing.
*Diagnostic Interview Schedule (DIS)*

The DIS is a structured interview that has been used in numerous clinical and research settings to support DSM-III-R diagnoses and is also available for DSM-IV. It must be administered by a trained interviewer and takes a minimum of 45-60 minutes to administer. The DIS is helpful in documenting psychiatric diagnostic information. It is not specifically geared to drug- or alcohol-dependent patients, and it is not a measure of change to be used in preoutcome or postoutcome studies.

*Brief Assessment Tools*

*Beck Depression Inventory (BDI)*

The BDI is a well-established, brief questionnaire easily used to assess symptoms of depression. The BDI is self-administered and easily scored, and the results are widely recognized. In the field of addiction treatment, the BDI can be used to measure one dimension of patient functioning—the level of depressive symptoms. However, the BDI is not a comprehensive or multidimensional instrument since it does not measure attributes other than depression. Like other self-rating depression instruments (the Zung Depression Scale and the Hamilton Depression Scale), the Beck overrates the true incidence of DSM-III depression, but it is a good screening tool to use prior to administering more complex depression assessments. It is also useful for monitoring the progress of the patient in treatment.

*Michigan Alcoholism Screening Test (MAST)*

MAST is a brief, self-administered questionnaire that assesses the extent of a person's problem with alcohol. Although MAST has been widely used as a screening instrument, some question its accuracy as a measure of change over time. Therefore, it may be useful to gain a quick assessment of alcohol-related problems, but not as a treatment outcome instrument. Another limitation is that the instrument assesses problems related only to alcohol use and not to all substances of abuse.

*Drug Addiction Severity Test (DAST)*

DAST is an instrument parallel to MAST; it is used to assess the level of drug-related problems and is used less widely than MAST. DAST's use is limited to screening programs, and it is not used to measure change over time.

*CAGE (Cut Down, Annoyed, Guilty, Eye-Opener)*

CAGE is a quick indicator of alcohol-related problems and can be self-administered. It may be useful as part of the routine medical screening process. It asks the following four questions (Ewing 1984):

- Have you ever felt the need to cut down on your drinking?
- Have you ever been annoyed by criticism of your drinking?
• Have you ever felt guilty about your drinking?
• Have you ever felt the need for an eye-opener in the morning?

These questions are not intended for use in measuring changes in behavior and do not provide any information regarding drug use.

Ongoing Assessment

While assessment serves as a beginning phase of treatment, it also must be an ongoing process used to measure patient progress, update the treatment plan, and aid in relapse prevention. In this sense, assessment is a dynamic process that creates a feedback loop from treatment intervention and disposition of patient progress to continued treatment planning. The frequency of ongoing assessments will vary from case to case. Patients at risk for suicide, for example, should be assessed more often than those concentrating on long-term goals.

Ongoing assessment can be accomplished by using the instruments described above, consulting with patients to review progress as measured by treatment plan goals, and doing followup studies of patients that measure abstinence at different intervals of treatment (e.g., 6 months or 1 year or both). Of particular importance in the ongoing assessment of MTPs is the evidence that many methadone-maintained patients initiate, continue, or increase cocaine use after the onset of treatment to experience the euphoric state no longer attainable with heroin (Condelli et al. 1991; Dunteman et al. 1992). Ongoing assessment also serves as a relapse prevention strategy by identifying early warning signs of relapse (see the Relapse Prevention section of chapter 4).

Diagnosis and Confirmatory Procedures

Assessment allows the clinician to form an accurate diagnosis and build an appropriate and realistic treatment plan. Two diagnostic classification systems are currently in use: The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and the International Classification of Disease, 10th revision (ICD-10), soon to be used by the World Health Organization. Although the two systems are organized differently, they are conceptually similar (Woody and Cacciola 1992). However, the DSM-IV classification system is more widely used in substance abuse treatment programs.

Disorders related to psychoactive substance use, most commonly dependence and abuse, are covered in the Substance-Related Disorders section of the DSM-IV. In DSM-IV, Axis I disorders such as depression, when accompanied by psychoactive substance use within 30 days, may be categorized as secondary or due to psychoactive substance use. A total of 11 categories of abuse and dependence are specified: alcohol; amphetamines or similarly acting sympathomimetics; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; PCP; and sedatives, hypnotics, or anxiolytics. Other DSM-IV categories include polysubstance dependence (meeting criteria for at least three categories of dependence as a group), psychoactive substance dependence not otherwise specified, and psychoactive substance abuse not otherwise specified (see appendix G, DSM-IV Diagnostic Criteria for Substance Abuse).
Preparing the Treatment Plan

After completing a thorough assessment and preliminary diagnosis of the patient, a treatment plan specific to the patient's identified needs should be prepared. A formalized treatment plan is required by Federal methadone regulations (21 CFR, § 291.505 (d)(3)(iv)), the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), and the Commission on Accreditation of Rehabilitation Facilities (CARF).

Formulation of a comprehensive, individualized, attainable treatment plan is based on patient strengths and the application of an appropriate mix of available programs or external resources. Often this plan concretely addresses the steps an individual must take to attain each goal. A quality treatment plan addressing short- and long-range goals is developed within a 90-day period through a series of progressive action plans. It is a much expanded version of the initial treatment plan identified earlier in this chapter. This plan is critical for ensuring that treatment is delivered in an organized fashion, and it serves as a continuous reference point for the clinician. The patient should participate in preparing the treatment plan and should sign and receive a copy so that patient and program work toward the same goals.

The case study in the following section introduces an example of an appropriate treatment plan and what it might entail.

M.J. is a 30-year-old Hispanic mother of two children who has been legally divorced for 3 years. She dropped out of high school at age 15 when she found out that she was pregnant. As a single mother on public assistance, M.J. first began using heroin intranasally at age 17 and began injecting 1 year later.

M.J. was born in Puerto Rico, and her family came to the United States when she was age 10. She is the youngest of five children whose father was an unemployed painter and alcoholic who physically abused her mother. He died in Puerto Rico 5 years ago from cirrhosis of the liver. M.J.’s relationship with her mother has always been strained. Her mother had numerous lovers whom M.J. resented. As the youngest, M.J. never felt that she received enough attention or love from her mother. She has spent most of her life searching for approval and love from whoever will show her affection.

To support her drug habit, which involved alcohol, cocaine, and continuous heroin use, M.J. turned to prostitution, which led to drug sales, theft, and other criminal activities. During this period, M.J. gave birth to her second child and married the father. M.J. was arrested on numerous occasions and currently has a case pending in criminal court for selling cocaine. After divorcing her husband, she moved in with her mother. Because of her chronic drug abuse and criminal history, the Child Welfare Agency was called anonymously and her children were placed in foster care. After her arrest and removal of her children, her mother threw M.J. out of the house; she lived with anyone who would allow her to spend the night.

M.J. entered a methadone maintenance treatment program as one of her first attempts to regain custody of her children. She saw cessation of her cocaine habit as secondary to cessation of her heroin
abuse. She initially stated that she wanted to change her life, obtain permanent housing, and cease prostitution. Though currently stabilized on methadone, she continued to use cocaine on a regular basis during her first 6 months in treatment. While in the program, she was tested for HIV and was found to be seropositive. This led to a bout of severe depression and some suicidal ideation, including an escalation in her cocaine abuse. Even though various attempts have been made to engage M.J. in treatment of her cocaine addiction, she is very resistant and often misses appointments.

M.J.'s treatment plan may be developed with short- and long-term objectives.

**Short-Term Objectives**

1. **Evaluate depression and suicidal ideation**

*Objective:* To determine the patient's needs for psychotropic medication, inpatient care, or weekly counseling

*Action:* Obtain an assessment, diagnosis, and treatment plan from the psychiatrist

*Target date:* Within 1 month

*Responsible persons:* Social worker, case- worker, psychiatrist

2. **Obtain housing**

*Objective:* To obtain a stable residence for the patient

*Action:* Contact Section 8 (an assisted- housing program), speak to Department of Social Services housing representative, check classified ads, contact realty agencies

*Target date:* Immediately

*Responsible persons:* Patient, caseworker, social worker, case aide

*Criteria:* Copy of lease, patient self-report, or both

3. **Obtain followup HIV care**

*Objective:* To obtain immediate medical attention for the patient, including possible medication with AZT, to delay the progress of the virus, and to reduce the patient's risk of transmitting the virus

*Action:* Refer to health care practitioners for medical history and comprehensive HIV physical examination.
**Target date:** 2 weeks  

**Responsible persons:** Patient, caseworker, health care coordinator, medical staff  

**Criteria:** Patient self-report and verification of medical results  

4. **Address cocaine abuse**

**Objective:** To educate the patient on the psychological and physiological effects of cocaine abuse

**Action:** Arrange for weekly meeting with caseworker, refer to a cocaine group, or to self-help groups such as Narcotics Anonymous (NA) or Cocaine Anonymous (CA).

**Target date:** Within 1 month  

**Responsible persons:** Patient, caseworker, group worker, medical staff  

**Criteria:** Patient attendance at meetings with the caseworker and group(s)

**Long-Term Objectives**

1. **Abstain from cocaine use**

**Objective:** To be free from cocaine abuse, regain custody of children, help resolve criminal court case, prevent physical deterioration due to HIV status

**Action:** Treatment through inpatient detoxification if outpatient approach has not worked; aftercare, such as cocaine continuing recovery groups; relapse prevention groups, NA, or CA meetings; or weekly meetings with the caseworker

**Target date:** 6 months  

**Responsible persons:** Patient, caseworker, social worker, medical staff, group workers  

**Criteria:** Toxicology reports, patient self-report, and patient's observed behavior at the treatment program

2. **Regain custody of the children**

**Objective:** To reconcile the family unit

**Action:** Refer to family and child welfare services; cooperate with the child welfare agency; and encourage the patient to become involved in treatment, maintain abstinence, obtain housing, etc.

**Target date:** 1 year
Responsible persons: Patient, caseworker, social worker, COSA (children of substance abusers) worker


3. Continue HIV medical care

Objective: To provide ongoing HIV education, treatment, and assessment

Action: Continue with primary care unit and attendance at support group meetings for HIV-positive individuals

Target date: Ongoing

Responsible persons: Patient, medical staff, primary care worker, social worker, caseworker, group worker

Criteria: Patient's self-report, primary care unit reports, and group leader reports

4. Obtain GED

Objective: To enhance patient's employability and self-esteem

Action: Refer to an educational therapist for testing, and have patient attend GED classes

Target date: 2 years

Responsible persons: Patient and educational therapist

Criteria: Patient's self-report and diploma

5. Obtain employment

Objective: To have the patient support herself and her children, and to enhance her self-esteem

Action: Refer to a vocational counselor for testing and determine an appropriate career goal, attend life skills group, consult classified advertisements, and refer to the National Association for Drug Abuse Problems (NADAP) or Vocational Educational Services for Individuals with Disabilities (VESID)

Target date: 2 years

Responsible persons: Patient and vocational counselor

Criteria: Employment verification and patient's self-report
In developing the treatment plan, the clinician should focus the discussion on the problem areas identified by the ASI or a similar instrument, giving special consideration initially to areas critical to survival (eating, sleeping, housing). The treatment plan should evolve as the patient's circumstances change.

### Elements of a Treatment Plan

- Identify appropriate interventions.
- Determine the order in which the patient's identified problems should be addressed.
- State the patient's problems along with goals, action steps, and target and actual dates for accomplishing them.
- Identify both long- and short-term goals attainable at 3-, 6-, and 12-month intervals and measurable by an expected performance or behavior.
- Discuss the treatment plan with the patient, and ensure that he or she agrees to it.
- Regularly modify and update the treatment plan to reflect patient changes and progress.

## Patient-Treatment Matching

Patient-treatment matching requires further research. A variety of conclusions have been drawn by researchers about how to match patients to treatment modalities, but the type of treatment that works best for a particular patient at a particular time remains unclear. These are some areas that are under investigation:

- Does matching work only if the treatment programs in the treatment network are distinct from one another in their interventions and are effective? ([McLellan and Alterman 1991](#)).
- Should the least intensive treatment interventions be attempted before more intensive interventions are pursued? ([Wallace 1992](#)). Do patients who have failed at one level of care need a more intense level of care? ([Barthwell and Gastfriend 1993](#)).
- Is the medical maintenance approach appropriate for rehabilitated methadone patients who are stable, employed, not abusing drugs, and not in need of support services? ([Novick et al. 1988; Senay et al. 1993](#)).
- Do outpatient intervention services to cocaine-abusing patients offer the same psychological and psychosocial interventions (e.g., counseling services, building the patient's social network, addressing family and job problems, and promoting participation in self-help groups) whether or not the patient is also in a methadone treatment program? ([Kolar et al. 1990](#)).
- Can methadone-maintained, cocaine-abusing patients benefit from structure, surveillance, and time-limited groups focusing on learning to avoid stimuli of cocaine craving? ([Kolar et al. 1990](#)).
- Should a distinction be made between matching at the initiation of treatment and matching during treatment since different levels of care may be needed over time? ([McLellan and Alterman 1991](#)).
- Should drug-free, behavioral, 12-step-oriented, and/or psychosocial approaches for cocaine- or alcohol-dependent patients in MTPs be used in addition to methadone treatment pharmacotherapy? ([Dole 1988](#)).
Patients with psychiatric comorbidity should be carefully matched to treatment modalities because their success varies in different types of programs (McLellan et al. 1984). In a study that measured treatment improvement of patients in both therapeutic communities and methadone maintenance programs, it was found that those in the residential therapeutic community with high psychiatric severity actually worsened the longer they were retained. However, high-severity patients in the methadone programs slightly improved. Although high-severity patients may improve marginally in a therapeutic community, their chances may be better in a methadone maintenance program (McLellan et al. 1984).

The American Society of Addiction Medicine (ASAM) has developed criteria for assessing the level of care appropriate for substance abuse patients (Hoffman et al. 1991). The criteria are defined for four levels of care using the following categories:

- Acute intoxication or withdrawal potential or both
- Biomedical conditions and complications
- Emotional or behavioral conditions and complications
- Degree of acceptance of or resistance to treatment
- Relapse potential
- Recovery environment

(See appendix B for a more extensive discussion of the ASAM placement criteria and levels of care.)

The Multidisciplinary Team

The complexities of treating patients concurrently dependent on opioids and cocaine require a multidisciplinary treatment team ideally involving general physicians, psychiatrists, psychologists, nurses, and counseling and social work staff (Barthwell and Gastfriend 1993). The actual composition of the treatment team will vary with the resources of the treatment program and the population treated by the program. Recovering staff often have important insights and can make significant contributions to the multidisciplinary team.

Roles

The general physician or psychiatrist has the primary medical responsibility on the treatment team. He or she should actively provide direction in the medical care of the patient. Not only should the physician be involved in decisions about medication and dosing levels for methadone patients, but he or she should also have an active role in treatment assessment, diagnosis, and
planning in case conferences with the team. The physician should also provide supervision and training to other team members and play an active role in treatment planning. Preferably, the physician will have been trained in addiction medicine. Ideally, program quality assurance plans should incorporate a peer review process.

Physicians are usually involved in doing indepth evaluations of the patient, monitoring all medications, and providing needed substance abuse interventions when indicated. Physicians can also provide help with specialty care and consultation on substance abuse treatment. While trained counseling staff can complete historical information on concurrent opioid and cocaine addicts, only a physician can make the final decision on admitting them to methadone maintenance treatment. Medical staff in a methadone maintenance treatment program are required to determine current dependence, document medical and family history, determine treatment eligibility, and explain the treatment process and the treatment options (Langrod 1993).

An additional role for the psychiatrist is to evaluate the patient and provide a psychological profile as well as administer standard psychological instruments, help the team articulate patient strengths and weaknesses, provide primary therapy when indicated, and consult with and train the treatment team. A psychologist may also perform these tasks.

Nursing staff see patients most often and routinely dispense medication; therefore, they can assess acute changes in appearance or demeanor that may indicate drug impairment or withdrawal and monitor all pharmaceutical medication taken by the patient as well as potential drug-drug interactions. Nurses may also be involved in conducting health education, HIV and TB counseling and education, HIV and TB testing, and TB prophylaxis and treatment.

The counselor or social worker or both work directly with the patient to develop and follow the treatment plan. In programs that do not have social work staff, counselors are often involved in case management services, sometimes supervised by social workers. The case manager on the treatment team helps the patient acquire a healthy living environment, education, employment, or new job skills; negotiate with social, criminal justice, and other systems in which the patient must interact; and address other areas of focus relevant to meeting primary living needs and psychosocial adjustment. Sometimes the social worker also functions as the counselor.

<table>
<thead>
<tr>
<th>Strategies for Multidisciplinary Team Meetings</th>
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<tbody>
<tr>
<td>- Hold multidisciplinary meetings, ideally twice a week for 1 1/2 hours each.</td>
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<tr>
<td>- Develop an agenda to facilitate the meeting. The agenda might include hospitalizations, HIV cases, updates on patients in crisis, and case reports.</td>
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<tr>
<td>- Base clinical decisions on patients' performance in treatment, focusing on behavior rather than intentions.</td>
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<tr>
<td>- Use multidisciplinary meetings as a forum for clinical reviews of all patients rather than as a forum for &quot;venting&quot; or focusing only on the sicker patients.</td>
</tr>
<tr>
<td>- Use multidisciplinary meetings as a time to discuss clinic management issues (e.g., patient-counselor ratio, training, clustering, loitering, dealers who prey on patients); these issues can affect overall treatment. Good management and communication among team members improve morale and service delivery.</td>
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</tbody>
</table>
Use regularly scheduled multidisciplinary meetings as an opportunity to provide staff training and quality assurance.

**Multidisciplinary Team Meetings**

Multidisciplinary treatment planning and ongoing assessment of the patient by professional staff is most beneficial for an effective treatment strategy and ensures that members of all disciplines work together on the same plan, each from a unique perspective. During these meetings, staff contribute their perspectives on the patient's progress and reach consensus on a treatment course.

Team members must base clinical decisions on the patient's readiness for treatment, which can be determined by identifying the patient's stage of change. For a patient not yet ready to change, for example, the clinician should seek ways to develop motivation.

Miller and Rollnick (1991) describe the stages-of-change model developed by Prochaska and DiClemente (1982). This model can be viewed as a wheel divided into five stages of readiness, with a sixth stage (Precontemplation) positioned outside the wheel. Once the patient enters the wheel, he or she can move through the stages of change. The clinician should recommend treatment appropriate for the patient's particular stage. The six stages are described below:

- **Precontemplation**-This stage lies outside the wheel. At this point, the person has not yet considered the possibility of change and seldom presents himself or herself voluntarily for treatment.
- **Contemplation**-This stage is characterized by ambivalence. The patient fluctuates between motivations to change and justifications for not changing.
- **Determination**-During this stage, the person experiences motivation to change.
- **Action**-At this point, the person acts to bring about a change. The actions may involve counseling or therapy.
- **Maintenance**-During this stage, the person seeks to sustain the change accomplished by the previous action and prevent relapse.
- **Relapse**-If relapse occurs, the person faces the challenge of starting again around the wheel rather than remaining in the relapse stage.

These stages of change and corresponding counseling responsibilities are outlined in the text box.

<table>
<thead>
<tr>
<th>Client Stage</th>
<th>Therapist's motivational tasks</th>
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</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>Raise doubt-increase the patient's perception of risks and problems with current behavior</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Tip the balance—evoke reasons to change and heighten awareness of the risks of not changing; strengthen the client's ability to change current behavior</td>
</tr>
<tr>
<td>Determination</td>
<td>Help the client to determine the best course of action to take in seeking change</td>
</tr>
<tr>
<td>Action</td>
<td>Help the client to take steps toward change Maintenance, Help the client identify and use strategies to prevent relapse</td>
</tr>
<tr>
<td>Relapse</td>
<td>Help the client to renew the processes of contemplation, determination, and action without becoming stuck or demoralized because of relapse</td>
</tr>
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**Training**

In addition to specific knowledge about methadone medication (e.g., its pharmacology), all staff should have specialized training in working with patients who may be addicted to cocaine. Staff should receive cross-training and continuing medical education from multidisciplinary team members so that each understands the different roles on the team. This training should include information about HIV and TB, including infection control; counseling concurrently dependent patients; psychiatric comorbidity; domestic violence; and cocaine-specific pharmacology and associated medical complications. A helpful resource in staff training is the *State Methadone Treatment Guidelines* (CSAT 1993b).
Chapter 4-Treatment Interventions and Related Issues

Treating methadone patients concurrently dependent on cocaine presents complex demands for the treatment team. These patients often have a variety of medical and psychological problems and benefit from a broad range of comprehensive services. Yet, while this ideal is highly desirable, our limited knowledge and the scarcity of funding and other resources, including staff, may render it unachievable. Programs cannot be expected to deliver optimal services (e.g., transportation; child care; flexible medicating hours; and housing, vocational, and family counseling) in the absence of funding and other resources to carry them out. Whenever possible, however, comprehensive strategies that combine the best of existing models of care in the local community should be applied.

The challenge in developing effective treatment interventions for this population lies in the ability to address heroin and cocaine abuse issues in a compatible manner: the appropriate treatment model for a cocaine addict may be quite different than that for a heroin addict; therefore, determining the appropriate model for a concurrently dependent addict may be problematic (Kosten et al. 1986b). Similarly, interventions effective for reducing cocaine abuse may not be as effective when used with cocaine-abusing methadone treatment patients (Condelli et al. 1991).

Adequate methadone dosing levels are essential for achieving good treatment outcomes. Ball and Ross (1991) found that a significant number of addicts continued using heroin when their methadone dose was less than 70 mg. Conversely, those patients receiving more than 70 mg stopped using heroin. Adequate methadone dosing should provide the background for the concurrent delivery of psychosocial interventions.

The following information summarizes treatment interventions used with concurrently dependent opioid and cocaine abusers.

Treatment Interventions

A variety of treatment strategies are available, including psychosocial interventions, biomedical interventions, self-help approaches, and other adjunct treatments. Nonpharmacological psychosocial interventions, when used effectively with or without pharmacological interventions,
may contribute to treatment retention, promote compliance with treatment regimens, and address the broader range of social, behavioral, and psychiatric problems characteristic of drug abusers.

When providing treatment to methadone patients who concurrently abuse cocaine, it is important to keep in mind that the goal of rehabilitation may not be feasible for individuals who have never been habilitated. Addicts whose psychological, emotional, and social development have never approached that of mainstream society need to learn the values and social skills espoused by our society. Often these concepts are not being relearned-they are being learned for the first time. Clinicians should be prepared to introduce them to patients to give them a better chance of attaining treatment goals.

**Psychoeducation**

Psychoeducation is the process of presenting information about addiction to the patient and his or her family and then addressing with them their attitudes and feelings about substance abuse. Psychoeducational treatment models, when used with other treatment approaches, may increase a patient's ability to function independently and meet his or her daily living needs outside the treatment setting. Psychoeducation programs can address the full range of patient needs, including academic education, personal development, recreation, health, vocation, and relationship needs (Stark and Campbell 1991).

### Strategies for Psychoeducation Programs

The following strategies can be used when developing psychoeducation programs within an MTP:

- Introduce psychoeducation at the beginning of treatment. Here, the psychoeducation program can serve as an orientation to both the clinical and recovery processes.
- Target the patient, family members, and selected friends.
- Adapt educational strategies and materials to the culture of the community being served.
- Discuss and clarify information about methadone and the myths related to its use (e.g., "it rots the bones" or "it's impossible to get off methadone").
- Discuss continuing alcohol and other drug use. Question assumptions about alcohol and other drug use and clarify how it can undermine other therapy.
- Discuss sexual behaviors, including exchanging sex for crack, using cocaine to enhance sex, intimacy and/or sex while drug free, using cocaine to ensure normal sex, and continuing sexual behaviors (e.g., prostitution) that can trigger cocaine relapse.
- Provide psychoeducation to the families of substance abusers to provide guidance in how to support recovery efforts.
- Discuss the power of "triggers" with patients and families. For example, merely discussing cocaine can be a trigger to begin using again.
- Incorporate special groups to discuss parenting, child care, women's issues, and coping with HIV/AIDS. It is important to be aware of the stigma often attached to being identified with an HIV/AIDS group. Using a generic name for the groups is recommended (e.g., Health Care Issues Group.)
Family Involvement

A difficult history of problems usually accompanies a patient's drug use. Relationships often deteriorate, including those between spouses, parents and children, siblings, and friends. The user, if employed, often experiences difficulties in the workplace, for example, lack of concentration, mistakes, tardiness, absences, an inability to get along with coworkers, on-the-job accidents, and increased workers' compensation claims. Financial difficulties are common as the user may spend money on drugs that is needed for rent, food, utilities, and other bills. Legal problems may also develop if the user resorts to crime to support his or her drug addiction.

The impact of drug use and the problems it causes the user's family cannot be underestimated. Family members can benefit from a psychoeducational program that teaches them about drug addiction and methadone and helps them cope with the methadone patient's stages of recovery.

One such program is the Community Network Project in San Francisco, a training program for families and friends of methadone patients designed to get them involved in the patient's treatment (Bernal et al. 1985). Based within the context of the methadone program, the Community Network Project works with patient-selected "sponsors," family members or friends who are drug free and want to help in the treatment. During the 18 hours of training, the sponsor does the following:

- Learns communication and coping skills designed to enhance his or her relationship with the patient
- Receives basic information about drug addiction, family dynamics, and therapy
- Benefits from the mutual support of others in the psychoeducational group

A followup meeting of participants occurs 3 months after completion of the training.

When provided early in treatment, it is also appropriate to address, during family psychoeducation, the family's feelings of resistance to psychiatric treatment for the patient. Other issues that can be discussed in family therapy include the following:

- Information about methadone and referrals
- Enabling
- Self-help groups (e.g., Alanon, Alateen, Co-Anon)

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Bernal and coworkers (1985) identify a training program for family members that incorporates four goals:

- To help family members participate in treating methadone patients
- To disseminate information and education about addiction and treatment
- To assist in developing coping and communication skills in sponsors
Contingency Management

Contingency management, also commonly referred to as contingency contracting, is a well-known behavioral intervention used particularly with methadone patients, including those who abuse cocaine. Contingency management is a way to reinforce desired behavior by providing immediate consequences. It can be used to improve compliance with treatment components such as attendance at counseling sessions, as well as to promote abstinence from illicit drugs. This approach is useful for treatment planning since it sets concrete goals and emphasizes positive behavior change.

### Strategies for Contingency Management Programs

- Pick a specific target behavior that can be easily measured (e.g., stopping cocaine use, measured by submission of cocaine-free urines).
- Pick a reward that can be given as soon as the desired behavior (e.g., abstinence) has been documented. The reward should not be exchangeable for monetary gain (e.g., nonrefundable movie passes, a take-home medication day).
- Specify the link between the targeted behavior and the reward. For example, a drug-free urine may earn 1 take-home medication day, with the understanding that other treatment and program variables must be taken into account, including Food and Drug Administration (FDA) regulations.
- Put the contract in writing, specifying its duration and any changes over time in contingencies (e.g., after 3 drug-free weeks, the patient can receive take-home privileges).

### Importance of Urine Testing

When contingency management is used to address concurrent use of short-acting drugs like cocaine, it is important to base consequences on objective measures of recent drug use, such as urinalysis. There must be adequate frequency of urine testing (e.g., random testing at least once per week) to detect short-acting drugs.

### Take-Home Incentive

With patients abusing cocaine, common techniques of contingency management in MTPs involve changing a patient's methadone take-home dose privileges contingent upon recent drug use status. Stitzer and coworkers (1992), in a well-controlled study with 54 patients, found successful results when patients could earn their first take-home methadone day after only 2 weeks of drug-free urines. A total of 32 percent of the patients who had been abusing cocaine became drug free for at least 4 weeks during the study, and most were drug free for much longer (a mean of 9.4 weeks drug free). Magura and colleagues (1988) also found that 1-month contracting for contingent take-homes produced a favorable response (e.g., drug abstinence) in 34 percent of their multidrug-abusing subjects. The take-home privilege is one of the most popular rewards available for attempting to change behavior in contingency contracting procedures, but it only motivates some patients to abstain from cocaine use.
Methadone dose changes have sometimes been used in contingency management. Stine and coworkers (1992) found that contingent dose increases might be useful for deterring cocaine use. However, contingent dose decreases are not generally recommended, since adequate dosing needs to be maintained to deter heroin use (Kolar et al. 1990; Payte and Khuri 1993) and since dose decreases tend to result in patients dropping out of treatment (Iguchi et al. 1988; Stitzer et al. 1986).

Often, the right to remain in the treatment program is used as a contingency with substance abusers. Dolan and colleagues (1985, 1986) found that the threat to terminate treatment effectively motivated about half the methadone patients studied to remain drug free for 30 days. Condelli and coworkers (1991) also used withdrawal from methadone as the contingency when patients tested positive for cocaine. Out of 79 patients approached, 60 agreed to participate in the contracting study. After 2 months of the intervention, positive tests for cocaine use dropped from 75 to 38 percent. Thus, the intervention was effective for those who participated voluntarily. Practitioners in the field are divided on the efficacy of discharge from methadone treatment. It is important to be aware of both schools of thought and to fully understand the clinic's philosophy on this controversial treatment issue.

**Application of Contingency Management**

It has been recommended (for example, by Stitzer and Kirby 1991) that contingency incentives be incorporated into methadone treatment, either through individual treatment plans or clinicwide policy, even if they do not work with all patients, since contingent incentives can lead to periods of abstinence among multidrug abusers and can increase drug-free time in cases of poor prognosis for permanent abstinence. Further, some of the other treatments outlined in this chapter, for example, relapse prevention and psychotherapy, could be employed during such periods of abstinence to further improve the chances of long-term success.

In summary, research has demonstrated that incentive programs using positive rewards (e.g., movie passes or methadone take-homes) are effective for promoting cocaine abstinence. However, reduction in methadone dosage or withdrawal from methadone are not recommended as initial approaches to obtaining cocaine abstinence. Other interventions (e.g., relapse prevention) may be usefully implemented during periods of abstinence.

### Related Research

Higgins and colleagues (1991) assessed behavioral treatment for cocaine users living in Vermont who were not in methadone treatment. His contingency system used awards for negative urine tests. It was possible for patients to accumulate about $1,000 worth of points during a 12-week period if they remained abstinent. Points were then exchanged for retail items selected by the patient and approved by the counselor as being relevant to the individual treatment plan (e.g., recreational equipment or continuing education materials). A total of 85 percent of patients stayed in treatment for 3 months, and 77 percent remained continuously abstinent from cocaine for at least 4 weeks. These high percentages suggest that this approach holds promise, although the patient population in Vermont may not
Relapse Prevention

Relapse prevention approaches seek to teach patients concrete strategies for avoiding drug use episodes. These include the following:

- Cataloging situations likely to lead to drug use (high-risk situations)
- Strategies for avoiding high-risk situations
- Strategies for coping with high-risk situations when encountered
- Strategies for coping with drug cravings
- Strategies for coping with lapses to drug use to prevent full-blown relapses

Classical relapse prevention approaches make a distinction between "slips" and relapses, with slips defined as mild episodes of use that are viewed as learning experiences. While this distinction prevails among treatment professionals, some clinicians believe that with cocaine-abusing methadone patients it may be counterproductive to discuss how to prevent a slip from turning into a full-blown relapse since this approach may implicitly encourage patients to use. However, no one has adequately researched this point regarding cocaine abusers.

A recent study using naltrexone (Trexan) to treat alcoholism also looked at relapse prevention approaches used in that treatment. The study found that those patients given supportive therapy with no specific relapse prevention coping skills had higher rates of overall abstinence. However, they were more likely to have a full-blown relapse if any drinking occurred than those patients given coping skills therapy with a specific relapse prevention component (O'Malley et al. 1992). Whether these results would occur with cocaine abusers requires further study.

Numerous relapse prevention treatment approaches have been developed and are currently in use. These are conceptually and therapeutically appealing. However, research that tests the effectiveness of relapse prevention approaches with drug abusers is lacking. While relapse prevention strategies use the same overall approach for all substance abuse, management of the multidrug user may require some modification and additional emphasis (Kosten 1991).

In particular, relapse prevention therapy with multidrug abusers may require specific interventions for each substance abused because the associated risks of relapse may be different for each drug (Marlatt and Gordon 1980). For instance, a methadone patient may associate heroin use with socializing and may associate cocaine use with alleviating depression. Also, the therapist should be aware that the multidrug abuser may attempt isolated uses of the abused substances that previously had been used together, which increases the chance of sequential lapses that can lead to full-blown relapse (Kosten 1991). For these reasons, States may do well not to set limits on the length of treatment-most patients will relapse to substance abuse at some point.

One of the most important components of relapse prevention is assisting the patient to identify the warning signs of relapse. To both empower the patient and to be able to confront him or her
about denial, it is critical that the therapist be well educated on the warning signs that may contribute to a resumption of drug use. A patient's false or misleading beliefs can precede relapse and serve as intervention points for the therapist. Some of those beliefs include the following (Washton 1988):

- Having an illusion of feeling cured after a few weeks or months of abstinence
- Believing that one can become a controlled or social substance user
- Idealizing the drug high, remembering only the pleasurable effects and selectively forgetting the adverse effects
- Overreacting to urges and cravings, leading to a belief that the treatment was not effective or that abstinence is not sustainable
- Denying vulnerability and not accepting the possibility of relapse, leading to overreaction if a relapse occurs (frequently leading to dropping out of treatment)
- Entering high-risk situations in denial of the risk (self-sabotage)

### Assisting Patients in Building Relapse Prevention Skills

The clinician can assist the patient with the following issues to help build relapse prevention skills:

- Developing new coping skills for handling high-risk situations
- Making lifestyle changes to decrease the need for the drug(s) of choice
- Increasing participation in healthy activities
- Understanding relapse as a process and an event
- Understanding and dealing with social pressures to use substances
- Developing a supportive relapse prevention network (e.g., with significant others)
- Developing methods of coping with negative emotional states
- Learning methods of coping with cognitive distortions
- Developing a plan to interrupt a slip or relapse
- Recognizing the warning signs of relapse, including making a list of personal internal and external triggers and warning signs
- Combating powerful memories of euphoria
- Reinforcing negative aspects of the drug
- Overcoming the desire to attempt to regain control over drug use
- Avoiding people, places, and things that may trigger drug urges
- Developing an array of pleasurable and rewarding alternatives to drug use

Additional emphasis should be placed on dealing with drug cravings of multidrug users who abuse cocaine; drug hunger among these users can be particularly intense because of the powerful memory of the euphoria (Gawin and Ellinwood 1988; Gold 1992). Almost any stimulus that can be associated with cocaine use can remind the addict of the drug, even talcum powder, snow, or bread crumbs. Depending on the patient, a song, money, or the smell of a match could be a trigger (O'Brien et al. 1986).

Extinction therapy has been useful in reducing cocaine use for some patients. The patient's route of administration (intranasal, injecting, or "freebase") should be considered when developing
cues for extinction therapy. An injecting user, for example, may not be influenced by a cue affecting an intranasal user.

**Cognitive and Behavioral Interventions for Relapse Prevention**

A variety of cognitive and behavioral interventions for relapse prevention are appropriate (Childress et al. 1992; Daley and Marlatt 1992). They include the following:

- Using clinical assessment tools that cause patients to identify how they think about their drug-taking behavior and its effects
- Teaching patients specific relapse prevention skills (e.g., behavioral rehearsal or covert modeling), cognitive reframing (e.g., coping imagery or reframing reactions to a slip or relapse), and lifestyle interventions (e.g., meditation, exercise, or relaxation)
- Reviewing common relapse warning signs and connecting these to thoughts, feelings, events, or situations
- Using cue exposure (extinction) treatment as a behavioral intervention to help reduce the patient's reactions to cues associated with drug abuse
- Planning, practicing (role playing), and implementing coping strategies and skills to deal with social pressures as well as painful emotional states
- Teaching the patients to identify their cognitive distortions (e.g., all-or-none thinking, catastrophizing, overgeneralizing)

Four treatment stages for the extinction of conditioned craving are summarized below (Gawin and Ellinwood 1988):

- During the initiation of abstinence, enforced isolation from drug use is linked with strict avoidance of conditioned cues.
- The patient is partially reintroduced to stimuli and cues through mental images elicited in a psychotherapy process to develop strategies for managing the temptation to use cocaine.
- The patient gradually reenters the cue-rich environment under controlled conditions.
- Successful abstinence is supplemented with maintenance therapies.

**Related Research**

- Marlatt and Gordon (1985) (referenced in Daley and Marlatt 1992) summarized warning signs as either intrapersonal or interpersonal determinants of relapse. Intrapersonal determinants (within the individual) included coping with negative emotional and physical states, enhancing positive emotional states, testing personal control, and managing urges and temptations. Interpersonal determinants included coping with relationship conflict and the social pressure to use substances, as well as enhancing positive emotional states associated with some type of interaction with others.
- Shoptaw and coworkers (1993) developed a comprehensive outpatient program for cocaine abusers. Their neurobehavioral model encompassed individual counseling, relapse prevention groups, family education groups, and 12-step groups. It was found that the longer patients were
Pharmacotherapies aimed at reducing craving may be used as adjuncts to relapse prevention although their effectiveness is still not clearly established by controlled clinical trials. (See the section on pharmacological interventions starting on page 41.)

For patients in methadone treatment programs, retention in the program is a significant factor in preventing relapse because the goal is to have patients continue with pharmacotherapeutic treatment for an extended period. Retention in treatment refers to the patient's ability and willingness to remain in treatment over time. Discussions of continuing pharmacotherapy with methadone should be part of the ongoing process of assessing the efficacy of treatments provided to the patient (Payte and Khuri 1993). Medical staff should ensure that patients are receiving adequate doses of methadone based on their individual needs, potential for relapse to the use of illicit drugs, and desire to remain in treatment.

Related Research

- A specific psychotherapy adaptation for opioid and cocaine abusers was developed by Rounsaville and colleagues (1983, 1985): Interpersonal Psychotherapy (IPT). This model is based on the premise that an individual attempts to cope with problems in interpersonal functioning through multiple drug abuse. Kosten (1991) uses the IPT to address specific areas that help the patient stop cocaine and opioid use:
  - Compare the adverse effects of abused drugs with the benefits that the patient perceives.
  - Identify the thoughts and behaviors that precede drug use.
  - Develop strategies to deal with drug-related cues and high-risk situations.
  - Develop more productive means for achieving the desired social gratification.

In using the IPT model, the therapist must be able to relate each drug used to the interpersonal setting. These may be either primary or secondary to other drug effects and may be tension relievers or inducers. For example, the abuser may use cocaine to reduce social isolation, but use heroin to reduce the cocaine crash. In this case, it is the cocaine abuse that will benefit from the IPT.

- Woody and coworkers (1983) examined the efficacy of supportive-expressive psychotherapy, another adaptation of psychotherapy for substance abusers, with patients in an MTP. Patients received either substance abuse counseling alone, counseling with supportive-expressive therapy, or counseling with cognitive- behavioral psychotherapy. Both psychotherapy groups showed greater improvement in more outcome domains than those who received the substance abuse counseling alone. Gains made by suts who received psychotherapy were sustained over a 12-month followup. The differences between treatments were most notable among patients having high levels of psychiatric symptoms. It was among this subgroup that psychobheotherapy improved outcome over that obtained by drug counseling alone.
Psychotherapy

Psychotherapy for drug abusers evolved out of methods initially developed to treat other conditions (Rounsaville and Carroll 1992). In general, an accurate definition of psychotherapy distinguishes it from counseling: psychotherapy focuses on intrapsychic processes that impair effective coping and damage relationships, while drug counseling historically has focused on external issues relating to the patient's life problems (Zweben 1993). Early versions of psychotherapy with substance abusers were found ineffective because they focused too heavily on intrapsychic conflict and not enough on symptom control (Rounsaville and Carroll 1992). The prevailing approach in substance abuse treatment programs is to emphasize reducing drug use while pursuing other goals only after drug use has been at least partially controlled. This strategy means either providing psychotherapy as part of a larger comprehensive program or employing techniques to reduce drug use as an integrated part of psychotherapy (Rounsaville and Carroll 1992).

Views differ on when to introduce psychotherapy. Some researchers indicate that psychodynamically oriented psychotherapy may not be useful either because it is ineffective or because in some patients it may precipitate relapse by stimulating feelings the patient is not yet able to handle. They suggest that exploratory psychotherapy should be used after 6-12 months of abstinence and only with those who wish to explore psychological problems in depth (Washton 1988). On the other hand, psychotherapy oriented to the stages of recovery is useful. For example, during the first 90 days to 6 months of treatment, patients need substantial support to manage painful emotions and interpersonal stress (Wallace 1992). In this context, psychotherapy can play a key role in helping patients deal with their emotional states instead of self-medicating with drugs.

### Common Strategies for Psychotherapy

- Devoting a part of the session to monitoring the patient’s most recent successes and failures in reference to his or her addiction
- Adopting a more active therapist role than would typically be required for treating other psychiatric disorders
- Working with the patient to bring about a resolve to stop using drugs instead of attempting to return to the days when drug use was enjoyable. (This strategy includes helping the patient develop a clear picture of life without drugs.)
- Teaching the patient to recognize the warning signs of potential relapse as well as develop new coping skills to help avoid relapse
- Supporting the patient in learning to rearrange priorities so that preoccupation with drug use no longer consumes time. (This strategy may involve acquiring new job skills, developing hobbies, and rebuilding relationships. The patient may need help with motivation and with exploring factors that interfere on a psychosocial level.)
- Assisting the patient in managing painful affects, since clinicians recognize that this discomfort is associated with compulsive drug use and relapse. (This strategy involves exploring the cause of such feelings.)
- Working with the patient to enhance interpersonal functioning and social supports to gain the rewards of friendships and relationships to replace drug use
Exploring interpersonal relationships and the impact of substance abuse on these relationships

• Using psychotherapy only after a strong therapeutic alliance has been developed with the patient or within the context of other supportive structures that guard against relapse

Cognitive and Behavioral Therapies

Trained substance abuse therapists can combine cognitive and behavioral therapies as one cognitive-behavioral therapy or use them as separate intervention techniques. When used as a combined technique, cognitive-behavioral therapy focuses on uncovering and understanding the relationship between automatic thoughts and underlying assumptions about problematic feelings and behaviors (Zweben 1993). When used separately, cognitive therapy focuses on restructuring self-destructive thought patterns to create healthy patterns of relating to oneself and others. Behavioral therapy focuses on modifying behaviors that lead to self-destructive ends and rewarding positive healthy behaviors that enhance self-care and lead to healthy relationships.

Behavioral therapies are generally used in substance abuse treatment programs to suppress antisocial behavior of patients. In this sense, the behavioral intervention takes the form of rules and regulations about standards of behavior while in treatment and includes sanctions for rule breaking (Woody et al. 1985).

With some patients who abuse cocaine, intense cravings can resurface weeks and sometimes months after abstinence has been achieved. If the patient is not aware of this phenomenon, relapse may be more likely (Carroll 1992). Behavior therapy using cue exposure treatment (extinction) is designed to reduce the drug-craving response. This therapy uses repeated exposure to such stimuli to help the patient master the experience without using drugs. For example, talcum powder can be used to provide a cocaine-like stimulus. The patient is helped to find a substitute image (e.g., a beach scene) to counter the drug craving experience, until he or she reports no more drug craving when exposed to that stimulus. Visual images can also be used as stimuli. The more authentic the stimulus is to the patient's experience, the more effective the technique. (Questionnaires to elicit information on both external and internal triggers can be found in appendix I.)

Cravings, or urges, are normal for a patient who is attempting to stop abusing drugs (Kadden et al. 1992). It is helpful to devise other methods for coping with cravings before they occur. Some examples follow:

• Becoming involved with a distracting activity such as exercising or going to a movie
• Talking through the craving with a friend or member of a self-help group
• Challenging and changing one's thoughts by keeping a list of the negative consequences of abuse and the positive reasons for being drug free
• "Urge surfing," a technique that likens urges to ocean waves; that is, they are small when they start, will grow in size, and then will break up and dissipate. Urge surfing is composed of three basic steps:
  o Taking an inventory of the craving experience as it affects the body
  o Focusing on one area where the urge is being felt and noticing what is occurring
Repeating the focusing process with each part of the body that experiences the craving

The purpose of urge surfing is to experience the cravings in a new way and to "ride them out" until they go away (Kadden et al. 1992).

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| • The efficacy of a cognitive-behavioral approach was demonstrated by Woody and coworkers (1983, 1985), where both cognitive-behavioral and supportive-expressive therapies were related to the greatest number of positive patient changes.  
• Beck and colleagues (1979) showed that cognitive therapies have been particularly appropriate with depressed patients. These can be modified for a substance-abusing population.  
• Rawson and coworkers (1990) developed a neurobehavioral model for outpatient treatment for cocaine dependency. The model is a comprehensive, time-limited program combining a range of strategies, including relapse prevention and individual therapy procedures, family systems materials, 12-step programs, and urine testing. It is designed to address cocaine abusers' problems at the moment they enter treatment, with no assumptions about underlying psychopathology. |

Self-Help Programs

Self-help programs have been used for primary cocaine addiction. They are appropriate both during active participation in a treatment program and as a practical continuing care service for long-term, stabilized patients who no longer require intensive one-to-one primary care (Nurco et al. 1991). Historically, the most popular and widely used self-help model is that of 12-step recovery programs. Twelve-step recovery programs appropriate for multidrug abusers of opioids and cocaine include Narcotics Anonymous (NA), Cocaine Anonymous (CA), and Alcoholics Anonymous (AA). They can serve as a valuable source for social support, peer identification, and role modeling, and offer an effective conceptual framework for relapse prevention and successful recovery (Washton 1988). Members gain strength and security from meeting with others who understand and share their concerns and who can offer practical strategies for surviving "one day at a time" (Gold 1992). In addition to their effectiveness when used in conjunction with a treatment program, the ongoing nature, wide availability, and absence of fees of 12-step programs support the notion that recovery is a lifelong process involving permanent changes in attitude and lifestyle (Washton 1988).

The programs are based on 12 steps that help members focus on gaining strength toward lasting recovery. Examples of the steps' themes are admitting powerlessness over the abused drug(s), accepting help from a power greater than oneself, and taking a fearless moral inventory of oneself. By accepting and carrying out the 12 steps and attending meetings regularly (as often as daily for some), many recovering addicts are able to reduce their sense of isolation and demoralization, leading to a better chance of ceasing drug use and remaining abstinent (Millman 1988).
For methadone patients, 12-step programs can pose certain problems: since such programs espouse total abstinence and these patients are maintained on methadone, they often feel out of place and unwanted. As a result, they may try to hide the fact that they participate in an MTP (Nurco et al. 1991). The national office of AA maintains a clear position that people on appropriate medication are welcome (Zweben 1993). However, other 12-step programs (e.g., CA and NA) and some local AA groups may not welcome methadone patients. Clinics can help alleviate this problem by directing patients to meetings that are more accepting of them, by developing specialized 12-step meetings at the methadone treatment site, or by working with other methadone programs to establish a 12-step group (Zweben 1993).

A variant of this idea, Methadone Anonymous (MA), was developed at Man Alive Research, Inc., in Baltimore, MD, in response to discrimination that methadone patients perceived in other 12-step groups. Methadone Anonymous defines methadone as a tool for recovery, not an obstacle to it. Issues related to the recovery process and how to overcome the discrimination directed toward methadone patients are discussed in MA meetings in conjunction with how to achieve and maintain sobriety over illicit drugs and how to avoid relapsing. Methadone Anonymous now has chapters in 47 States.

Recovery-oriented psychotherapy (Zweben 1987) generally assumes 12-step participation by the patient while he or she is also receiving professional treatment. Recovery issues encountered in the 12-step program can be simultaneously addressed by the therapist, with the therapist's methods changing to match the evolving needs of the patient.

In chapters where methadone patients are accepted, CA may be an appropriate choice of 12-step groups. Cocaine Anonymous can provide support, strength, and hope for its members. Like AA, the program from which CA developed its structure, participation is free of charge and open to all who wish to stop using cocaine and other mind-altering substances. In many areas of the country, there are also Co-Anon chapters for families of cocaine addicts. Co-Anon, a sister organization of CA, offers support and friendship for individuals struggling to cope with the cocaine addiction of a loved one (Bohlen 1989). However, CA is less well established than AA, and in some areas of the country patients may have difficulty finding a cohesive CA group. Some patients may find that the CA meeting provides stimuli and may provoke use. If the patient reacts in this way, it may be more appropriate to attend AA meetings.

Several other self-help models have been developed, although they are not widespread. An example is the Clinically Guided Self-Help (CGSH) model, developed at the Social Research Center in Baltimore, MD, a viable and cost-effective adjunct to primary treatment (Nurco et al. 1991). Participation is voluntary and draws on patients' motivation to take greater responsibility and control of their lives. Staff members provide information and skills training necessary for the patients to run their own groups and set their own behavior standards. The groups are small (5-12 members) and are designed to provide stabilized patients with the following:

- A positive peer support network
- Constructive, non-drug-oriented social and recreational activities
- A means of reinforcing the growth achieved by primary treatment
- An opportunity to engage in outreach and advocacy projects to help others
Preliminary assessments of the program suggest that those participating in the self-help process have lower relapse rates, as reflected by urinalysis, and greater treatment retention rates than those not participating (Nurco et al. 1991).

Rational Recovery (RR) is a free self-help program that distinguishes itself from the traditional 12-step programs. Associated with the Institute for Rational-Emotive Therapy, RR stresses self-control and the power of the individual. It may appeal especially to those patients who do not accept the concept of the "higher power" that is the basis of AA, CA, and NA. Rational Recovery also differs from the traditional 12-step programs in its assertion that a person can recover from addiction, rather than always being in recovery (Rational Recovery Systems n.d.). Similar programs that have been advocated include Women for Sobriety and Secular Organization for Sobriety (SOS).

Followup and Continuing Care

Patient followup and continuing care are critical to ensure the patient's success in remaining abstinent from heroin and cocaine abuse. Given the likelihood that some patients will relapse, it then becomes important for programs to educate patients about the relapse process and facilitate reentry into treatment quickly if relapse occurs. Followup and continuing care services create a continuum of support for the patient and need to be properly funded.

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<td>Strategies used to plan and implement followup and continuing care services include the following:</td>
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<tr>
<td>• Educating the patient about continuing care options, including pharmacotherapy</td>
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<td>• Providing some continuing care services as an inhouse adjunct to the treatment program that incorporate some of the earlier program elements (e.g., individual counseling on a less frequent basis) and offer new elements (e.g., continuing care support group)</td>
</tr>
<tr>
<td>• Linking patients with relevant supportive services in the community at discharge when the program itself does not have these services available</td>
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<tr>
<td>• Following up with the patient at regular intervals following discharge (e.g., 30 days, 6 months, or 1 year) for a minimum of 1 year</td>
</tr>
<tr>
<td>• Collecting followup information by using a survey mailed to the patient or making an appointment for the patient to visit the therapist who provided earlier treatment</td>
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</table>

Special Issues

Detoxification

It is debatable whether detoxification is necessary or even helpful for treating withdrawal from cocaine. While development of tolerance and the presence of a withdrawal syndrome have been identified in individuals regularly using cocaine, most patients have little difficulty initially stopping the use of cocaine; detoxification may not be indicated. However, patients have difficulty in maintaining long-term abstinence. A variety of pharmacological approaches have
been attempted during the early phases of abstinence from cocaine to promote the patient's ability to remain drug free and decrease chances of relapse. The efficacy of these approaches remains unclear (see chapter 7: Consensus Panel Recommendations for Further Research).

**Pharmacological Interventions**

Some clinicians may be reluctant to prescribe medications for patients who need drug addiction treatment. Physicians in MTPs may have less difficulty with this concept, as they have accepted the notion that medication is appropriate for treating drug addiction. Yet, even doctors in MTPs may remain reluctant to give medications with addictive potential for problems other than for substance abuse.

In deciding whether to initiate pharmacotherapy, several factors must be considered (Kosten 1992):

- Motivation(s) for seeking treatment, including psychiatric comorbidity
- Phases of recovery
- Associated psychosocial problems
- Potential for relapse

When appropriate, it is clear that pharmacotherapies should be used:

- Within a comprehensive program that blends medical, psychiatric, and social interventions and supports the patient in complying with medication dosing schedules
- Within the context of the multidisciplinary team approach where regularly scheduled meetings of the multidisciplinary team are necessary to ensure that all team members are aware of the patient's progress in treatment, including the pharmacotherapeutic component
- With a careful selection of prescription drugs because some substance abusers will attempt to "get high" on any medication prescribed. Some medications with little abuse potential in other populations may pose a significant risk of abuse in this population (Woody et al. 1991)

For those patients who do receive medications, the following procedures have been found to be useful:

- The duration of the prescription should be carefully monitored by the program physician and other interdisciplinary staff.
- The necessity of prescription renewals should be discussed with the multidisciplinary team.
- Patients receiving prescriptions should be seen once a week by their clinicians.
- All numbers should appear in both the figure and spelled-out forms (e.g., 42 [forty-two]).
- Incidents of patients requesting prescriptions significantly earlier or later than scheduled should be documented and discussed.

For methadone patients concurrently dependent on cocaine, a variety of pharmacotherapies are currently being evaluated for use in conjunction with opioid addiction, detoxification, or methadone treatment. Pharmacological treatment of cocaine abuse generally involves using antidepressants, dopamine agonists, increases in methadone dosage, or other pharmacologic agents that either block the acute effects of the cocaine, or reduce drug craving. Additionally,
new long-acting maintenance agents for opioids, such as levo-alpha-acetylmethadol (LAAM) (recently approved by the FDA and marketed as Orlaam) and buprenorphine (Buprenex) are being explored. LAAM's effectiveness in reducing opioid drug craving and preventing opioid drug withdrawal is similar to that of methadone but does not require daily dosing. There is no information yet on LAAM's impact on concurrent cocaine abuse. Buprenorphine, which is being studied as an alternative to methadone, was originally thought to have some usefulness in treating cocaine abuse (Kosten 1991; Kosten et al. 1989b, 1989c; Mello et al. 1989), but the most recent research casts doubt on this finding (Schottenfeld et al. 1993). Some treatment successes have been documented for pharmacologic agents, but the efficacy of these medications is still being researched (see chapter 7). Of course, using such drugs to treat concurrent cocaine abuse is a different issue than using psychotropic medications for clearly comorbid conditions, for example, antidepressants for depressed cocaine/opioid abusers.

Treatment Implications for Patients With Psychiatric Comorbidity

It is important to recognize psychiatric disorders in cocaine and heroin abusers because they are prevalent and are associated with poor treatment outcomes. The most commonly encountered psychiatric disorders in this population are listed in table 1, in the approximate order of their expected prevalence in heroin and cocaine abusers (Kosten et al. 1989a; Rounsaville et al. 1982).

The frontline clinician working with cocaine- and heroin-abusing patients may be in the best position to recognize these disorders in the patients. Therefore, the clinician should have a working familiarity with how the disorders present. Definitive diagnosis and treatment may be best handled by referral to an experienced mental health clinician (e.g., psychiatrist, psychologist, or psychiatric social worker). It is ideal for a mental health clinician to be an integral part of the treatment team and to diagnose and treat on site. This capability will not be possible at all clinical sites, in which case ready availability of outside consultants and referral sources is recommended.

Symptoms of cocaine, other-stimulant, and narcotic abuse can mimic a variety of psychiatric disorders and symptoms. To avoid misdiagnosis, the clinician must carefully elicit the patient's lifetime history to determine whether any psychiatric disorder has occurred during periods of abstinence or minimal drug use. For example, patients who present symptoms of hyperactivity, impulsivity, or inattentiveness may indeed be abusing cocaine. However, these symptoms are also characteristic of attention deficit hyperactivity disorder (ADHD), and it is essential that clinicians be aware of the possibility that ADHD may be an underlying problem. Psychiatric diagnosis should usually be withheld until the patient has been stabilized in substance abuse treatment (minimum, 5-7 days; preferable 2-4 weeks) and drug use is either reduced or eliminated. Although several weeks of abstinence will allow the clinician to diagnose more accurately, severe psychiatric symptoms (e.g., suicidality or a psychotic reaction) need to be attended to promptly (Ziedonis 1992). Many psychiatric syndromes, however, will be resolved once the drug abuse is treated.

An overview of psychiatric disorders to aid clinicians in screening patients and to indicate the range of possible treatment options is provided in appendix H. Exact DSM-IV criteria can be found in the DSM-IV manual and handbooks (American Psychiatric Association 1994). The
Structured Clinical Interview (SCID) for DSM-IV may also be a useful tool for clinicians, since it suggests standard questions for eliciting the various disorders.

The following characteristics of this population should be considered in developing a therapeutic response (Borant 1992):

- Patients with psychiatric comorbidity do not readily self-identify in exclusively addiction-oriented groups. The patients feel most at ease with others who are also suffering from similarly diagnosed psychiatric problems.
- Groups are effective with psychotic individuals as long as the patient is able to tolerate a group session without causing disruption.
- A relapse in one disease increases the chance of relapse in the other. Stress may lead to a relapse in either.
- Patients with psychiatric comorbidity may have special problems that may not be adequately dealt with by either system; therefore, they may be given conflicting messages about the use of medications.

The following principles are essential in the clinical management of patients with psychiatric comorbidity:

- The treatment of the psychiatric illness should be well coordinated with the substance abuse rehabilitation.
- Physicians treating substance abusers should be knowledgeable about addictive diseases, and substance abuse counselors should understand psychiatric illness and its treatment. See the preceding section of this chapter on pharmacological interventions.
- Psychotropic medications should be prescribed only when spontaneous remission has been ruled out and only after the patient has stabilized (3 weeks to a month). Dependence-producing agents should be avoided.
- Patients are often fearful of and resistant to receiving a psychiatric diagnosis. This resistance should be addressed by assuring patients that it will allow them to receive optimal treatment.
- Therapy should be more active than therapy for single diagnosis psychiatric patients, with the primary goal being abstinence rather than insight.
- An initial family meeting is often effective early in treatment and is an appropriate time to address the family's feelings regarding how the addiction has affected them, as well as any resistance to psychiatric treatment for the patient (Stanton and Todd 1982).
- Patients need to be told that their mental state may have been induced by their cocaine use. If depression, anxiety, or psychosis persist after 1 month, patients should be reevaluated.
- Physicians should be alert to the presence of panic disorders, which can be dangerous, especially when suicidal ideation is present.

Cocaine-dependent methadone patients diagnosed with depression have improved treatment outcomes if psychotherapy and pharmacotherapy are both integrated into their treatment plans (Ziedonis and Kosten 1991). When treating cocaine and heroin abusers for depression, it is important that depressed addicts acknowledge their need for drug rehabilitation and abandon their common belief that the addiction will disappear when the depression lifts (Dackis and Gold 1992). Substance abuse treatment requires effort and sacrifice on the part of the patient, while affective illness usually responds well to pharmacotherapy. Cognitive therapies can be effective
with this population when used with pharmacotherapy. Interpersonal therapy (IPT) can also be effective in treating depressed heroin and cocaine addicts (Rounsaville et al. 1985).

In treating anxiety disorder among cocaine and heroin addicts, it is important to guard against indiscriminate use of medication. Anxiety is a cardinal feature of early recovery and may not indicate a disorder unless the anxiety symptoms persist after detoxification (Dackis and Gold 1992). Patients with anxiety disorder are likely to self-medicate with opioids, which can cause a vicious cycle of craving and euphoria (Dackis and Gold 1992; Kosten et al. 1986b). The therapist will need to be aware of this risk.

### Related Research

- Kosten (1992) suggested that patients seeking treatment for cocaine abuse were psychiatrically vulnerable; up to 35 percent were concurrently depressed (Kleber and Gawin 1984; Rounsaville et al. 1991; Weiss et al. 1986). Specific interventions, therefore, may need to be undertaken for cocaine abusers who have this psychopathology.
- Nunes and colleagues (1991) identified methadone patients with chronic depression and treated them with the antidepressant imipramine. A total of 9 of 17 (53 percent) showed substantial improvement in both mood and decreased illicit drug use; 5 of these 9 responders were injecting or freebase cocaine users. Since depression occurs frequently among opioid addicts and cocaine abusers, this research suggests that diagnosing and treating depression in these patients is a useful strategy and may result in reduced cocaine use as well as improved mood.

According to DSM-IV, a diagnosis of antisocial personality (ASP) disorder should be made only if the associated characteristics occurred prior to age 15 and are not the result of the addict's lifestyle; in other words, they must precede the substance abuse. Conventional psychotherapy is not effective in treating substance abusers with ASP (Shamise 1981; Woody et al. 1985). Many patients with this diagnosis do not respond well to treatment (Rounsaville et al. 1983; Woody et al. 1991). However, behavioral interventions have been used to suppress antisocial behavior of patients whether or not full-blown ASP was indicated (Walker 1992; Woody et al. 1991). In addition, there is evidence of a strong association between high-risk behavior (such as needle sharing) and patients suffering from psychological stress (Metzger et al. 1991).

### Related Research

- Woody and coworkers (1991) found that addicts with ASP often have other psychiatric disorders. In particular, patients with depression as well as ASP tended to benefit from therapy more than addicts with only ASP. The authors suggested that this result may occur either because these patients have at least one disorder that is responsive to psychotherapy or because depressed ASP patients have more capacity to relate to people and events and to experience their feelings. The study was done with patients in methadone treatment; although it may apply to persons with cocaine dependence, it has not been studied in this population.
Prescribing Psychotropics for Patients With Other Psychiatric Problems

A variety of psychiatric problems may accompany narcotic addiction and require concurrent use of psychotropic medications with methadone. Clinicians should carefully review possible drug interactions when combining psychotropic medications with methadone (Woody et al. 1991). Drug interactions that may not normally be present in nonsubstance abusers may appear in substance abusers because they tend to experiment with drugs. For example, using benzodiazepines with methadone may produce a clinically significant high not normally obtained when either drug is used alone. When monoamine oxidase (MAO) inhibitors are prescribed for depression, the clinician needs to be aware that serious drug interactions may occur if the patient uses prescribed medications (e.g., meperidine [Demerol]), or illicit drugs (e.g., cocaine).

Kleber (1983) summarizes the use of psychotropics for various disorders as follows:

- For schizophrenia, neuroleptics can be used at lower doses than normal but with caution, to avoid the possibility of tardive dyskinesia.
- Lithium can be used for manic disorders. Patients may experience increased drowsiness as a side effect.
- Minor tranquilizers used for anxiety may pose a problem when used by drug-addicted patients because of the possibility for abuse.
- MAO inhibitors used for depression may have dangerous drug interactions when used by drug-addicted patients.
- When using tricyclic antidepressants to treat major depression, care should be taken to establish that the depression has persisted for a clinically significant length of time.

Patient Noncompliance

To assist patients who concurrently abuse opioids and cocaine to comply with program rules, it is necessary to (1) understand the psychosocial factors influencing the patient and (2) implement action based on understanding the patient's problem. It is also essential to provide a fair set of treatment options that responds to the patient's needs. Patients can become extremely opposed to the total abstinence ideal if they feel pushed too far (Barthwell and Gastfriend 1993).

To assess a patient's motivation for treatment, the clinician should first review what is known about the patient. If this information does not explain the patient's compliance problem, the clinician may need to collect more data about the patient. Collecting more data usually leads to enhancement of services, including moving to a more intensive level of care, such as a day program or therapeutic community.

Understanding the patient's resistance to treatment may be facilitated by asking a series of questions:

- Does the patient feel overwhelmed by the demands of the treatment?
- Are there special circumstances contributing to continued drug use (e.g., a spouse who is also a user; community conditions, including a prodrug environment; many users in the work environment)?
• Does the patient feel involved in his or her treatment?

<table>
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<tr>
<th>Summary of Strategies for Patient Compliance</th>
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<tr>
<td>• Review what you know about the patient. Collect more data if necessary.</td>
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<tr>
<td>• Enhance your understanding of the patient by identifying and thoroughly investigating his or her resistance to treatment. Develop methods for ameliorating noncompliance behaviors.</td>
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<tr>
<td>• Consult with the treatment team to both supplement patient evaluation and solicit recommendations for treatment.</td>
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<tr>
<td>• Review program policies and procedures. Establish a philosophy of treatment that allows for the needs of individuals and makes distinctions among the various drug-abusing behaviors and lifestyles.</td>
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<tr>
<td>• Recognize the various stages of a patient's motivation and plan interventions accordingly (Miller and Rollnick 1991; Prochaska and DiClemente 1982).</td>
</tr>
<tr>
<td>• Network with probation and social service officials to promote a comprehensive strategy to increase a patient's compliance with treatment.</td>
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<tr>
<td>• Make special provisions for access to treatment in unusual circumstances, such as for a patient who is disabled or has atypical employment considerations.</td>
</tr>
<tr>
<td>• Consider the patient's socioeconomic background in assessing his or her ability to effectively advocate for himself or herself, and provide extra support when necessary.</td>
</tr>
<tr>
<td>• Effectively use role models within the program.</td>
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Approach a patient's resistance to treatment sensitively. If the patient feels overwhelmed by the demands of the treatment regime, he or she may drop out of treatment and feel more discomforted and demoralized than before admission (Miller and Rollnick 1991; Millman 1988). Be aware of limit setting within treatment strategies that can directly affect patient motivation. Although limit setting is necessary, effective treatment involves collaboration between the patient and therapist, reflecting the need to promote autonomy and responsible decision making on the part of the patient (Zweben 1993).

It may be helpful, especially in more difficult cases, to meet with the treatment team and review their recommendations in addition to those of the counselor. If necessary, the clinical supervisor should intervene by evaluating the patient and providing supervision to the counselor. The treatment team and the clinical supervisor may provide a more powerful intervention than the counselor alone.

On a more procedural level, it is important to develop a program philosophy that distinguishes the needs of different types of drug abusers. An overgeneralized treatment approach does not adequately engage a patient in treatment (Millman 1988). Also, the program's policies should be reviewed by asking the following questions:

• Has the program developed a spectrum of services: day care, therapeutic community, evening care for working patients?
• Does the program policy provide for clinical recognition of the treatment/recovery phase?
• Are all staff regularly provided an arena to discuss ethnic, gender, and minority issues?
• What is the program's policy for maintaining a therapeutic climate?

Cocaine-abusing patients in methadone programs have been shown to have higher rates of noncompliance with program rules and regulations than those who do not abuse cocaine (Condelli et al. 1991). A variety of strategies can be used to help motivate patients to comply with their program and stay in treatment.

The list in the text box to the left gives some of the major points of consideration.

<table>
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<th>Related Research</th>
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<td>• A study by Hunt and colleagues (1984) found that patients reporting cocaine use were more likely to use heroin and spend time on the street and less likely to conform to program rules, receive take-home privileges, and hold jobs or seek employment than patients who did not report cocaine use.</td>
</tr>
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Several program elements should be considered that can affect patient compliance and subsequent retention in treatment:

• Adequacy of methadone dosage
• Geographic ease of access to clinics
• Convenient hours sensitive to patient need
• Affordability of care
• Staff availability and access (to minimize patient discouragement)
• Staff competence in responding to cultural, ethnic, gender, and social factors
• Quality of social services (e.g., family, employment, and financial assistance)
• Provision of a complete and holistic service continuum that includes primary medical, psychiatric, obstetric and gynecologic, and HIV services
• Staff attitudes and a program atmosphere that convey respect, dignity, and compassion toward the patient
• The inappropriateness of short-term MTPs for these patients

**Spiritual Issues**

A drug user with a high degree of religious motivation sometimes finds that treatment programs that include spiritual guidance or counseling can produce positive outcomes (Muffler et al. 1992). Since affiliation with religious organizations has long been an important component of American culture, it makes good sense to draw on these resources to help treat substance abusers. Larson and colleagues (1988) have noted, however, that more effective collaboration between religious organizations and other community providers (e.g., mental health professionals) would increase the benefits to individuals seeking help for their substance abuse problems.

More than ever, Protestant and Catholic churches are responding to the needs of this part of their congregations, usually by sponsoring and providing meeting space for AA or NA groups.
One advantage offered by church-oriented programs is the support offered by others in a socially sanctioned group.

Churches have a long history of commitment to serving their parishioners in time of need. They are finding that contemporary social problems require a reexamination of the services they deliver. For example, people who work in programs developed for the HIV/AIDS population or the homeless recognize that alcohol and other drug abuse can be a major deterrent to achieving a functional lifestyle. This recognition has compelled churches and other religious associations to find ways to address substance abuse within their established programs (Muffler et al. 1992).

Participation in church-sponsored programs is not for everyone; however, for patients for whom religion or spirituality is an important part of their cultural milieu, the churches may play a pivotal role in helping the substance abuser resolve to seek help.

**Issues for Special Populations**

Although cocaine dependency touches the lives of many different groups who are part of the same clinic environment, certain populations warrant special attention. Among these are women, especially pregnant women; adolescents and young adults; families with children; persons with HIV/AIDS; and persons with TB. Clinics may be able to offer specialized services to some of these groups. For example, some clinics have obtained special funding for services to pregnant women or children of substance abusers. Optimally, more specialized services would be available in drug treatment programs, since such ready access to these populations provides opportunities for public health intervention. This section provides an overview of issues to consider when treating special populations.

When working with these populations, it is important for clinics to do the following:

- Employ counselors and therapists who understand the unique factors that may impact on each of these subpopulations, such as socioeconomic status, cultural and value systems, race, ethnicity, gender, sexual orientation, and media misrepresentation
- Modify therapy and consider therapist selection on the basis of the age, ethnicity, and gender of the patients. Some patients may be distrustful of therapists who are of a different gender, socioeconomic status, or culture. Explore these issues with the patient early in treatment
- Provide cross-cultural competency training for staff to enhance counselors' ability to effectively serve various subpopulations

**Women**

It is well accepted by clinicians that women need to be treated with sensitivity to their special needs and problems. Such sensitivity may be critical to successful treatment. Women who have been long-term substance abusers may have complex and multiple medical problems, including gynecological infections, amenorrhea, hypertension, hepatitis, TB, pneumonia, sexually transmitted diseases, and HIV infection (Brown et al. 1992). Women face both external and internal barriers to entering treatment:
• Many women enter the treatment system with a long history of childhood emotional, physical, and sexual abuse. Such abuse may not be mentioned or discussed by either the patient or the therapist. However, after initial stabilization for substance abuse problems, counseling may begin focusing on the patient's intimate relationships. Counselors should be aware that unresolved physical and sexual abuse issues may become primary relapse hazards.

• It may be difficult to reduce addicted women's risk of contracting HIV. Addicted women's sexual partners are often injecting drug users. Women may be unwilling to raise issues of safer sex or needle sharing because they fear rejection or physical violence if they urge safer sex practices with their partners. These women may benefit from group therapy and eventually from assertiveness training.

• Women with a history of narcotic and/or cocaine addiction may engage in prostitution to finance their drug use. Sometimes they come from a subculture where sex for drugs and money is common, and they may work for pimps who control them by supplying heroin or cocaine as well as money. By continuing their opioid use, prostitutes find they can numb themselves to their work, handle long working hours, sustain their energy levels, and remain somewhat confident despite their difficult living situations. Many treatment centers have found that women who trade sex for drugs or money usually have an underdeveloped sense of femininity and sexuality (Winick 1992). These women may be helped by treatment that incorporates these issues into the treatment plan.

• Child care responsibilities present a major barrier to consistent participation in treatment. The cost of child care and the inability of programs to provide on-site day care while the mother is in therapy may present obstacles to beginning or remaining in treatment. Lack of transportation can also be a barrier to seeking or maintaining treatment and should be evaluated for each patient.

• Family planning services, including reproductive education, should be available in any treatment program, but especially where cocaine abuse is a problem. Family planning practices become an issue because some women confuse amenorrhea caused by substance use with infertility. Before entering treatment, they may have been sexually active for many years, without using contraceptives and without becoming pregnant. Given that substance abuse treatment pharmacotherapies help to normalize endocrine function and shift eating patterns, women in early stages of treatment may become pregnant unexpectedly. Assertiveness training may be appropriate for sexually active women but should be considered with care in the absence of an adequate support system (e.g., a "safe place") and group therapy or self-help groups.

• Clinicians should advise pregnant women who continue using cocaine that some State regulations require reporting illicit substance use to child protective services or other appropriate agencies.

• Socioeconomic factors, such as discriminatory hiring practices, low wages, and stigmatization may cause low self-esteem, shame, and guilt and contribute to continued drug use by women.

It is important to recognize these issues when planning treatment interventions for women and to provide educational information about possible health risks specific to women.

**Pregnant Women**

The use of opioids and cocaine during pregnancy can cause medical and obstetrical complications and affect the development of the fetus. Clinicians should take care to designate
pregnant drug-dependent women as "high risk" and closely monitor the medications given for drug dependence treatment over the course of the pregnancy.

In addition to biomedical consequences found in any opioid-dependent person, heroin is known to cause neonatal abstinence syndrome, low birth weight, prematurity, stillbirth, and sudden infant death syndrome (Finnegan and Kandall 1992).

Increased numbers of pregnancy complications are specifically associated with the use of cocaine. These include spontaneous abortion, poor weight gain, and precipitous delivery (Finnegan and Kandall 1992). The appetite suppressant effect of cocaine may compromise the nutritional needs of the mother and fetus and can interfere with a successful delivery. Cocaine has also been found to pass into breast milk (Smith 1986). Possible effects on the fetus associated with cocaine use include mild neurodysfunction, transient electro-encephalogram abnormalities, cerebral infarction and seizures, vascular disruption syndrome, and smaller head circumference. There is some evidence that cocaine use may cause congenital anomalies. However, other factors may also be responsible, including alcohol, nicotine, or other drug use; general poor nutrition; and the patient's lifestyle.

The use of methadone treatment for narcotic dependency during pregnancy has been well-studied and established. Research indicates that methadone can be successfully used during pregnancy without major adjustments in dosage and, in fact, may provide the following advantages (CSAT 1993a):

- Reduces or eliminates illegal opioid use
- Buffers opioid-dependent women from the drug-seeking environment and eliminates the "necessary" illegal behavior
- Prevents the sharp fluctuations of the maternal illicit drug levels that may occur throughout the day and are detrimental to the developing fetus
- May reduce, control, or even eliminate multidrug abuse because of exposure to a drug treatment environment in which all drug use is discouraged and abstinence is rewarded
- Improves maternal nutrition and increases the weight of the newborn
- Improves the women's access to and ability to participate in prenatal care and other rehabilitation efforts
- Enhances the women's ability to prepare for the birth of the infant and begin homemaking
- Reduces obstetrical complications

Withdrawal from methadone maintenance is rarely appropriate during pregnancy. When attempted, methadone should be withdrawn slowly under close medical supervision and with careful fetal monitoring. It is generally accepted that if the patient insists that the dose should be lowered, this step should be taken during the middle trimester of pregnancy, not the first or third. Split dosing or raising doses in the last trimester of pregnancy (Pond et al. 1985) is recommended by some clinicians since plasma levels of methadone are decreased in the last trimester because of expansion of blood volume. In any case, all factors should be considered while making an individualized assessment. Neonatal abstinence syndrome may occur in a fetus exposed to methadone, and the baby will require careful monitoring after birth.
The use of medication to reduce craving for cocaine during pregnancy is not as well studied. It is generally recommended that pregnant women withdrawing from cocaine should not be medicated except in very specific instances and under certain conditions. Guidelines for treatment options for cocaine withdrawal during pregnancy have been developed by a Consensus Panel (CSAT 1993a).

Sensitivity to and elimination of the barriers women often encounter will help them to enter and continue treatment. Removing these barriers may mean addressing the needs of family members through family services, which may include the following:

- Women's groups to discuss the many issues confronting drug-dependent pregnant women
- Groups that focus on parenting and child-care issues
- A safe place for children to play while waiting for their parents or other child-care options should a mother seek treatment in an inpatient or residential setting
- Including children in group meetings when appropriate
- Couples/marital counseling
- Possible relocation to a safe place

All staff in methadone programs should be trained to meet the needs of pregnant women. It is equally important that public assistance workers be cross-trained about MTPs. In addition, pregnant women should be informed by MTP staff that some States regard drug use during pregnancy as child abuse and require the program to file a report with child welfare authorities. Some women are driven from treatment because of these laws. Others may be mandated to treatment by a child welfare agency in order to keep their babies who might otherwise be put in foster care. To keep families together, treatment programs must maintain honesty and credibility with such child welfare agencies.

<table>
<thead>
<tr>
<th>Frequently Occurring Complications That Can Compromise Pregnancy in Drug-Dependent Women</th>
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<tr>
<td><strong>Medical</strong></td>
</tr>
<tr>
<td>Anemia, bacteremia, cardiac disease, cellulitis, central nervous system hemorrhage, depression and low self-esteem, poor dental hygiene, diabetes, edema, hepatitis, hypertension, phlebitis, septicemia, pneumonia, tachycardia, tetanus, tuberculosis, urinary tract infections, STDs (Finnegan and Kandall 1992)</td>
</tr>
<tr>
<td><strong>Obstetrical</strong></td>
</tr>
<tr>
<td>Abruptio placenta, amnionitis, breech presentation, previous cesarean section, chorioamnionitis, eclampsia, gestational diabetes, intrauterine death, intrauterine growth retardation, placental insufficiency, postpartum hemorrhage, preeclampsia, premature labor, premature rupture of membranes, septic thrombophlebitis (Finnegan and Kandall 1992)</td>
</tr>
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To treat patients using take-home dose privileges in a manner that is less restrictive than the Federal methadone rules, a practitioner or a program must apply for an exemption and receive approval from the FDA.
Persons With HIV Infection

The most common behaviors associated with HIV exposure of methadone patients concurrently dependent on cocaine are sharing injection equipment and engaging in unprotected sex with partners at risk of HIV infection. Increasing HIV rates among injecting drug users are a significant problem for patients concurrently dependent on heroin and cocaine because injection is usually the primary route of administration. Treatment providers have noticed that these patients need intensive medical intervention and that other medical problems associated with injecting drug use, such as TB or hepatitis, are exacerbated by the HIV infection. In addressing HIV issues within this population, both prevention and intervention strategies should be employed.

An advantage of MTPs is that patients inject heroin less frequently or quit altogether, thereby decreasing their risk of HIV exposure through needle sharing. Yet methadone-maintained patients who inject cocaine and share injection equipment continue to be at risk of HIV infection. For this reason, all staff need extra training to work with cocaine-abusing HIV patients. In addition, during acute use of cocaine, cocaine's aphrodisiac qualities can lead to increased sexual drive, prolongation of the sexual interaction, and participation in multiple-partner sex marathons (Winick 1992). The risk of HIV exposure can remain very high if concurrently dependent persons are treated independently for opioids or cocaine without consideration of the risks associated with use of the other substance. An additional problem with some cocaine abusers is coexisting compulsive sexuality, which often remains undiagnosed and unaddressed. The combination increases the frequency of sexual behaviors that contribute to the spread of HIV (Washton 1989).

When working with methadone patients concurrently dependent on cocaine, medical staff should do the following:

- Consider HIV testing highly desirable, with pretest and posttest counseling conducted for each patient during the medical evaluation. More appropriate medical care and other supportive services can be offered if the patient's HIV status is known early in treatment.
- Perform periodic physical examinations on HIV-positive patients to observe potential symptomatology. Referral to more specialized HIV services is appropriate if basic medical care and monitoring are not available in the treatment program.
- Obtain baseline and followup T-lymphocyte (CD4 and CD8) counts. (Most programs do not have this capability except by referral.)
- Provide early medical intervention, including nutritional changes, supplemented with prophylactic medications such as aerosolized pentamidine.

Components of prevention strategies should include the following:

- Counseling and testing of persons already infected or at risk of HIV infection by using qualified staff. (Some States require staff certification.)
- Helping uninfected individuals initiate and sustain behavioral changes to reduce the risk of infection
- Assisting infected persons to take precautions to avoid infecting others
• Educating staff about HIV infection, including risk reduction and confidentiality issues, the implications of HIV testing and counseling, infection control guidelines, and universal precaution procedures
• Informing HIV-negative patients that STDs may increase the risk of HIV infection (because of open lesions and a compromised immune system, for example)

Pretest counseling sessions should include discussion of the following issues (Neshin 1993):

• Modes of viral transmission
• Prevention measures, with special attention given to evidence that having other STDs may increase the likelihood of contracting HIV infection during sexual activity
• The HIV antibody test and the meaning of both negative and positive results as well as the need for retesting to confirm a negative result after the 6-month latency period ("window")
• Advantages and disadvantages of testing
• The patient's expectations of test results
• The patient's existing support system (if the patient agrees to be tested)
• Confidentiality of the test results and the patient's reaction and coping skills if the result is positive

Patients with a positive result may exhibit a variety of reactions such as anxiety, shock, anger, sadness, guilt, denial, depression, and isolation (Sorenson and Batki 1992). After patients receive the results, posttest counseling should be offered, in which patients are allowed to absorb the information and vent their feelings. In the posttest counseling session, the clinician should do the following:

• Provide support for the patient
• Review information about preventing the transmission of the virus
• Remind HIV-positive patients that a positive HIV test result is not the same as having AIDS
• Encourage HIV-positive patients to notify sex and needle-sharing partners and offer assistance in making these contacts
• If necessary, refer HIV-positive patients to a mental health professional for assistance
• For HIV-negative patients, review prevention issues, including those relating to STDs
• Discuss the window period with HIV-negative patients, and encourage a retest within 6 months
• Consider framing treatment plans using the situational-distress model stages: crisis, denial, anger, acceptance, and death

Some programs have extended their services by networking with other organizations, for example, religious organizations, as noted earlier. Depending on religious persuasion or upbringing, it may be appropriate to refer HIV-positive patients to church-based programs whose counselors are trained to work with HIV/AIDS patients. Such programs may also include an emphasis on grief and bereavement counseling. Many churches that have traditionally administered to the disadvantaged and poor have broadened their programs to include the homeless, drug abusers, and those with HIV/AIDS (Muffler et al. 1992). HIV-positive and AIDS patients generally have far greater needs for social services than do "healthy" patients, and often substance abuse treatment programs have few resources to provide anything but minimal social services (Sorenson and Batki 1992). A religious organization can be an important source of support.
**Persons With TB**

Given the increasing incidence of TB in the substance-abusing population, patients should be screened and examined for active symptoms of TB every 6 months (see appendix D for sample TB/PPD testing forms). Anergy panels should also be administered to diagnose anergic patients. Should a patient have TB or a positive TB test, medical staff should treat the patient for TB or refer the patient to a primary care clinic for medication. In either case, drug treatment staff can have an active role in monitoring medication compliance to help prevent the emergence of multidrug-resistant TB. If rifampin is used to treat TB in a methadone patient, care should be taken to adjust the patient's methadone dosage, as rifampin accelerates the clearance of drugs metabolized by the liver. The methadone dose may need to be increased, split, or both (Neshin 1993). Women patients who take INH and oral contraceptives should be advised that the INH may decrease the effectiveness of the oral contraceptives; these women should be advised to use barrier methods as well to prevent pregnancy. Special attention should be paid to hygiene and ventilation in drug treatment programs to protect staff, patients, and the general public.

**Adolescents and Young Adults**

Special services for youth are rare in methadone maintenance since regulations for acceptance of patients under 18 are quite restrictive; the average methadone patient is in his or her midthirties. Alcohol, nicotine, and marijuana remain the first drugs of abuse in the teenage years, with some teens using cocaine early on. Opioid addiction often develops secondarily. Since cocaine use persists and often dominates methadone treatment, it is crucial to meet the special needs of this younger population. The few programs that have developed services for this group (e.g., The Adolescent Development Program in New York City) emphasize group work and peer pressure as well as social, educational, cultural, and recreational programs designed to meet the needs of youth, both to attract them into treatment and to retain them.
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Chapter 5-Legal and Ethical Issues

The chemically dependent patient should be given the same rights and conscientious care as a patient treated for any other physical ailment. Addicted persons should be assured that their care will be comprehensive and nonjudgmental and their rights to privacy and decision making respected. Without this ethical basis and assurance of protection, it would be very difficult for addicts to voluntarily seek treatment without fear of being discriminated against for doing so or being treated with substandard care. Federal regulations (42 CFR, § Part 2) are in place to protect and enforce a patient's fundamental rights to privacy and nondiscrimination. Addiction treatment professionals should also be cognizant of the principles of respect and beneficence that are not mandated by any law.

In designing programs and providing services, agencies and individual providers must adhere to Federal and State laws. Because these laws are subject to change, programs and services need to be reviewed periodically by the provider's legal counsel. Any federally assisted alcohol or drug abuse program, hospital, clinic, and/or referral center must follow Federal regulations concerning the confidentiality of alcohol and drug abuse patient information (42 CFR, § Part 2). While State laws may be more stringent than Federal regulations, they may not negate any stipulation laid out in the Federal regulations. Hospitals, clinics, and treatment program staff must be aware of their State's laws, regulations, and reporting requirements (e.g., with respect to mental health, HIV, and child protection). Likewise, patients in treatment programs should be told what confidentiality protection their program offers and when these protections may be suspended. For instance, a program can be subpoenaed to release confidential treatment records. However, the program has the right to present its case for nonrelease prior to release of any information if a valid legal defense is presented.

Confidentiality and reporting laws and regulations significantly affect service providers. The challenge is to design a treatment program that complies with Federal and State laws and regulations, while providing services responsive to patients' special needs. Treatment program
staff must be trained to deal with the conflicts between confidentiality and reporting issues and to recognize how these conflicts affect their ability to deliver services (CSAT 1994a).

The Federal regulations on confidentiality and reporting are set forth in 42 CFR, § Part 2. In many instances, they restrict the treatment provider from releasing information about drug abuse patients to a greater degree than doctors or attorneys are restricted in releasing information about their clients. Violating the regulations is punishable by a fine of up to $500 for a first offense and up to $5,000 for each subsequent offense. Any program that specializes, in whole or in part, in providing treatment, counseling or assessment, and referral services to patients with alcohol or other drug problems, must comply with the Federal regulations. These Federal regulations apply to all programs that receive Federal assistance; this includes indirect forms of Federal aid such as tax-exempt status or State or local government funding coming in whole or in part from the Federal Government. The regulations and the exceptions to them are specific; for more indepth information regarding confidentiality, disclosure, and reporting, refer to Confidentiality: A Guide to the New Federal Regulations (Legal Action Center 1988).

Each MTP may write a bill of patients' rights and responsibilities tailored to the specific requirements of the program. Service providers can establish a basis of trust and respect by discussing these rights and responsibilities with the patient upon admission. In addition, all staff should understand them. The State Methadone Treatment Guidelines (Chapter 4-Admissions Policies and Procedures) outlines the crucial items to be included in a patient's rights statement (CSAT 1993b).

Informed Consent

To initiate treatment, Federal regulations require that the patient sign an informed consent (FDA Form 2635) regarding participation in methadone maintenance (21 CFR § 291.505(d)(1)(ii)). All patients are entitled to be advised of their rights and responsibilities regarding confidentiality, program policies and procedures, and treatment services provided.

Many programs obtain other consents at this time to facilitate admission and improve treatment. Consent to obtain records from other treatment programs or hospitals or both will allow the medical team to better assess the patient. Consent to notify a central registry (to preclude enrollment in more than one MTP) and consent to allow the program to bill insurers for services rendered should also be obtained.

Some MTPs include written agreements for the patient to sign concerning program policies regarding patient fees, prevention of diversion or loitering, community incidents, proper storage of medication in the home, and other important issues. Programs should be aware that many applicants are extremely anxious during the admissions process. It may, therefore, be necessary to review the many forms and consents with the patient after a few weeks when he or she is more stable and able to clearly understand these documents.

Communicating With Patients About Confidentiality

Methadone treatment program staff should be concerned with how they communicate with
patients regarding confidentiality and reporting, and how they share information about a patient with other programs or individuals. Patients should receive the following information:

- Information about the various Federal, State, and local laws and how such laws affect individuals receiving services.
- Information about their right to confidentiality; patients should be informed about laws related to reporting and court involvement.
- A copy of the written informed consent document. When informed consent is obtained, it must be time limited, content specific, person-to-person, signed, and witnessed, in keeping with the requirements of Federal drug treatment confidentiality laws.

**Patient Records and the Courts**

Service providers and patients should be concerned with how courts handle patient records, and under what circumstances courts can order medical or psychiatric evaluations or both.

- Once records go to adult court they become public record. Individuals concerned about court records and subpoenas need to understand State laws. It should be noted that in most States, but not all, juvenile records are confidential.
- Courts can order an evaluation to determine if a patient needs treatment for substance abuse, to make a diagnosis, and to make a referral for treatment or services. If the court orders the evaluation, the information cannot be kept from the court because of confidentiality regulations. However, the information is still confidential to all other individuals and institutions outside the criminal justice system.

Patients should also receive information regarding confidentiality of records on entering treatment.

**Confidentiality and Testing for HIV and Other Infectious Diseases**

Assurance of confidentiality in HIV counseling and testing is imperative if the desired outcome is routine consent to testing. Persons will be more likely to participate in counseling and testing programs if they believe that they will not experience negative consequences in areas such as medical services, housing, employment, and school admission.

Most States require that patients who agree to counseling and testing sign an informed consent specific to HIV testing. This consent should describe what the HIV antibody test does and does not indicate, State practices regarding the reporting of test results, and confidentiality guidelines followed by the program and the State.

The program should stress to patients that having specific clinic staff know their HIV status can be integral to providing comprehensive substance abuse treatment. Individual MTPs should define their criteria for "need to know" in light of the need for confidentiality. The patient's signed informed consent indicates those staff who need to know HIV test results in an emergency situation. On the other hand, patients should have the option of anonymous, off-site
HIV counseling and testing if they so choose.

Requiring individuals to be tested for HIV and other infectious diseases as a condition of admission to treatment, refusing to admit otherwise eligible individuals, or providing differential treatment to such patients are practices that are likely to violate Federal and State nondiscrimination laws. However, to protect the safety and health of the patients and staff, an individual seeking treatment who is thought to have active TB or any other highly contagious disease may be denied admission until it has been medically determined if the patient needs treatment prior to being admitted to the program. Undoubtedly, testing for infectious diseases can benefit patients in treatment as well as the community at large. Testing for HIV, hepatitis B, TB, syphilis, and other sexually transmitted diseases is strongly advocated for treatment populations as it can lead patients to seek appropriate medical care, initiate preventive actions, and interrupt the transmission of the disease to others. Despite these benefits, some patients may choose not to undergo testing. Treatment providers need to be respectful of these choices.

Reporting of HIV and Other Infectious Diseases

Certain infectious diseases must be reported to health authorities under State statutes and regulations. Many variations exist among States concerning conditions and diseases to be reported, timeframes for reporting, agencies that should receive reports, persons required to report, conditions under which reports are required, and penalties for not reporting. In most States, local health departments rather than State departments receive infectious disease reports. The patient needs to be made aware of these State regulations while at the same time being reassured that this information is confidential and will not be released inappropriately. Treatment providers should seek information about the requirements of their State and develop protocols and training programs to ensure compliance (CSAT 1994a).

Programs can fulfill both State reporting and Federal confidentiality requirements in the following ways:

- The program can obtain the patient's consent for disclosure of information.
- Programs that are part of a general hospital or larger health care facility can make disclosures that do not identify an individual as a drug or alcohol patient.
- A program can enter into a Qualified Service Organization Agreement (QSOA) with a laboratory or medical care provider that conducts HIV testing or other diagnostic services for the program. Under this agreement, the program gives the names of individuals with reportable conditions to the service provider, which in turn discloses the information without disclosing the person's status as an alcohol or substance abuse patient.
- Programs can disclose information under the research exception if the purpose of the State's reporting law is solely to collect data about the incidence of HIV and AIDS so that the State can comply with the requirements of the law.

Contact Tracing and Partner Notification

Public health statutes in States usually authorize or require contact tracing for sexually transmitted diseases. Most States currently do not classify HIV infection as a sexually transmitted disease, although some States have specifically authorized or required such tracing.
The informed consent of the patient must be sought for contact tracing and partner notification in circumstances where statutes are silent. All notifications accomplished by persons other than the patient, regardless of the reporting requirement, are performed without revealing the identity of the patient (CSAT 1994a).

Although the name of the infected person is not revealed during partner notification and contact tracing, it may be inferred by the partner in some situations. These notifications may place patients in treatment at risk for negative consequences, such as physical abuse or abandonment. Treatment providers should exercise care to protect patient confidentiality when counseling about, assisting with, or performing partner notifications and contact tracing. Public health statutes in all States require the Public Health Service to be notified of cases of known or suspected active TB. Laws mandate appropriate followup and treatment of anyone who may have acquired TB from a known exposure to an individual with active TB.

The Duty To Warn

Despite strict ethical codes and legal requirements for the confidentiality of patient information, some treatment providers may find themselves under a "duty to warn" statute that may require a breach of confidentiality. Treatment providers may be faced with and should be prepared to resolve the conflicting obligations to protect the patient's right to confidentiality and the duty to warn a third party of a threat to harm (CSAT 1994a).

A trend in the law has developed to require psychiatrists and other therapists to take "reasonable steps" to protect an intended victim when they learn that a patient presents a "serious danger of violence to another." This trend started with the case of Tarasoff v. Regents of the University of California, 17 Cal3d 425 (1976). In this case, the California Supreme Court held a psychologist liable for monetary damages because he failed to warn a potential victim whom his client killed after first threatening to do so. The court ruled that a psychologist has a duty to warn the intended victim or others likely to notify the victim of the danger, to inform the police, or to take other steps reasonably necessary under the circumstances.

While the Tarasoff ruling, strictly speaking, applies only in California, courts in a number of other States have followed Tarasoff in finding therapists liable for monetary damages when they failed to warn someone threatened by a client. Most of these cases are limited to situations in which patients threaten a specific identifiable victim, and they do not usually apply where a patient makes a general threat without identifying the intended target. States that have enacted laws on this question of a threat to a specific victim have similarly limited the duty to warn to such situations.

There is, however, another problem: The apparent conflict between the Federal confidentiality requirements and the Tarasoff case. The Federal confidentiality regulations prohibit the type of disclosure that Tarasoff and similar cases require, unless the disclosure is made pursuant to a court order or is made without identifying the individual who threatens to commit the crime as a patient. Moreover, Federal regulations make it clear that Federal law overrides any State law that conflicts with the regulations. In the only case, as of this writing, that addresses this conflict between Federal and State law (Hensenie v. United States, 541 F. Supp. 999 [D. Md. 1982]), the
court ruled that the Federal confidentiality law prohibited any report.

A program that learns a patient is threatening violence to a particular person or persons may be well advised to seek a court order permitting a report or to make a report without revealing client-identifying information. If a staff person believes that a particular person is in clear and imminent danger, it is probably wiser to err on the side of reporting the danger to the authorities or to the threatened individual. This guideline is especially important in States that already follow the Tarasoff rule.

While each case presents different questions, it is doubtful that any prosecution (or successful civil lawsuit) under the confidentiality regulations would be brought against a staff member who warned about potential violence when he or she believed in good faith that a particular individual was in real danger. On the other hand, a civil lawsuit for failure to warn may well result if the threat is actually carried out. In any event, the counselor should at least try to issue the warning in a way that does not identify the individual as a substance abuse patient.

Release of Information

Nonconsensual and unauthorized release of confidential information may harm the patient and may subject the health care and social services provider to civil or criminal liability. To avoid this possibility, the MTP administrative staff should develop protocols and procedures governing the release of information and train employees in their use. Access to counsel knowledgeable in the area of confidentiality should also be provided to employees. At a minimum, the following information should be covered in protocols and training:

- Elements of and procedures for obtaining informed consent
- Situations in which consent to release information is not necessary (e.g., if the patient is in an emergency room and unable to communicate adequately, communication with medical personnel is justified on the basis of the medical emergency clause)
- Whether to notify patients when information is released without their consent (e.g., court order or medical emergency)
- How to respond to a request for information (e.g., in denying a request, making sure that the denial does not itself confirm the existence of a medical or substance abuse condition)
- How to limit disclosures to information necessary and relevant for the provision of services to the patient or how to satisfy legal grounds for nonconsensual disclosure

Ethical Issues

While the Federal regulations were set up to protect the confidentiality rights of drug and alcohol patients, the law can pose difficulties for addiction treatment professionals when confidentiality seems at odds with a person's duty to warn.

The following section discusses a few of the difficult and controversial topics specific to methadone patients concurrently dependent on opioids and cocaine. Some issues remain in contention among the Consensus Panel; however, some essential ethical guidelines are put forth.
based on sound clinical judgment.

**Retention Versus Discharge**

Continued cocaine use by concurrently dependent methadone patients poses particular challenges to program staff in providing comprehensive services. Controversy exists among expert clinicians about when and whether to discharge a patient from a methadone program for continued use of illicit drugs and alcohol. The Consensus Panel agrees that patients should be given every chance to continue in and try to benefit from treatment and that treatment should last as long as it is appropriate and effective. Staff should make every effort to rework treatment plans and provide help and counseling for continued use of other drugs. A policy of administrative discharge of patients from treatment for continued addict behavior, such as discharge for cocaine-positive urines, may sometimes be self-defeating. Treatment providers have worked on ways to discourage continued drug use while patients are in treatment (see chapter 4). If a methadone-maintained patient continues to use heroin, the physician should look carefully at dosage and blood plasma levels to see if there is a problem with metabolism, absorption, or excretion that might influence adequacy of dosage.

There is controversy over where to draw the line with concurrently dependent patients. Those favoring a harm-reduction approach stress that no matter how extensively patients on methadone use illicit drugs, they are better off than they would be without methadone. Particularly, their risk of acquiring or spreading HIV infection while on methadone is reduced.

On the other hand, failure to set limits increases the likelihood of a particular patient's continued use of drugs and of increased overall use in the clinic, thereby defeating the harm-reduction goal. Because of the scarcity of treatment slots and waiting lists for methadone treatment in many locations, an individual who occupies a treatment slot while continuing to inject may prevent another patient from receiving treatment who wants it and might benefit more. This issue would not be as important if treatment were promptly available to all who need it.

Given the scarcity of treatment resources, programs may need to consider administrative discharge for patients in noncompliance and develop their own policies based on the unique characteristics of the clinic and the patient population served.

Pregnant patients who continue to use drugs, including alcohol, also pose special difficulties. Every effort should be made to counsel these patients about the dangers of continued substance use. Practices and procedures such as warning, extra counseling, urine screens, loss of take-home privileges, and probation should be used. It is also essential to retain pregnant patients in treatment, where they may benefit from supportive and medical services. Discharge exposes them to potential relapse to needle use and life on the street. Although withdrawal from methadone is rarely recommended for pregnant patients, when it is attempted it must be done with special care under the supervision of a physician experienced in perinatal addiction (see chapter 4).

There will, nevertheless, be situations when an administrative or disciplinary discharge is necessary. When a patient endangers staff, other patients, or program existence with violent,
threatening, or criminal behavior, he or she should be discharged after adequate warning. The Consensus Panel recommends establishing ethical criteria for discharge that include a suitable dosage protocol for withdrawal from methadone and a readmit procedure that includes a behavioral contract. If a private clinic has to discharge for nonpayment, one way to ensure that a patient is not abruptly cut off from medication is to require payment upon admission for the first and last months to establish a buffer zone for gradually tapering off medication.

**Withdrawal**

The Consensus Panel agrees that blind withdrawal is unethical unless requested by the patient to aid in the withdrawal process. Withdrawal and discharge should be a last resort in light of the strong probability of relapse and the subsequent dangers of infectious disease that jeopardize the patient's health. In addition, withdrawal can lead to potentially serious medical complications. Withdrawal should not be considered as a punitive action but can be a measured response to program ineffectiveness for that patient.

**Pregnancy, Continued Substance Use, and Child Protective Services**

Treatment providers will be confronted at times with difficult situations involving patients with children and their local child protective services agencies. Some patients may have already worked out agreements about what must be done to keep their children before they enter a drug treatment program. Programs should not discriminate against patients on the basis of such agreements or their involvement with child protective services. All Federal and State laws regarding confidentiality should be adhered to. If a child is judged to be at imminent risk of harm and all intervention services have failed, a child protective services worker may be involved. Alcohol and other drug use alone, however, should not be the sole criteria for court intervention (CSAT 1993a).

Reporting can cause dilemmas as hospitals, programs, and physicians must also adhere to the Federal confidentiality laws on alcohol and drug abuse information. Programs need to be cognizant of the reporting requirements in their State, and patients should also be advised about certain situations in which their confidentiality protections may be suspended. For example, a physician treating a mother who abuses cocaine and leaves her young children alone may be required to report the situation to a child protective services agency despite the confidentiality agreement between the physician and patient.

Reporting laws on maternal substance abuse and fetal exposure have an impact on pregnant patients and patients who are mothers. A report on a substance-abusing mother could lead to removal of children from her care and placement of them in protective custody or foster care. A woman might forego getting prenatal care, followup care, or even treatment for fear of losing her child.

\(^4\)TB and syphilis testing is required by 21 CFR § 291.505.
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Chapter 6-Evaluating Program Performance

To assess the effectiveness of treatment for individuals concurrently abusing heroin and cocaine, we should evaluate the methadone treatment programs that serve them. These evaluation efforts should consider the needs of all patients but emphasize issues relevant to concurrent cocaine and heroin abuse. Evaluation of MTPs is particularly important because they constitute the predominant modality for treating heroin addiction.

Evaluating the effectiveness of MTPs is essential in improving the services that they deliver. MTP service improvement, in turn, critically impacts on the longer term goal of improving AOD treatment nationwide. Further, evaluation studies allow treatment providers to incorporate results into individualized plans for quality improvement. Not only are such plans part and parcel of many State regulations for MTPs, but they are also required of programs working toward accreditation through either the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) or the Commission on the Accreditation of Rehabilitation Facilities (CARF). Additionally, issues of noncompliance with State and Federal treatment regulations can be realized and resolved.

Through treatment program evaluation, problem areas are identified and opportunities for treatment improvement become available. Of particular interest here are problem areas related to concurrent heroin and cocaine abusers. Recognition of a problem area should be followed by appropriate action, and the effectiveness of that action in improving overall treatment effectiveness should be continuously monitored (JCAHO 1987). If improvement does not result, the validity and reliability of the performance indicators used in the evaluation could be reassessed along with the adequacy of the remedial action.

In formulating an evaluation design, choosing the variables to be measured (dependent variables) is of utmost importance. Two variables have typically held primary status in assessing MTP intreatment effectiveness: The extent to which drug abuse (e.g., heroin and cocaine abuse) is reduced or eliminated, and the extent to which criminal activity is reduced or eliminated (Ball and Ross 1991). Although these variables maintain considerable importance in investigating treatment effectiveness, they measure only treatment results. The evaluator must also review many other factors to conduct an evaluation that reflects overall program effectiveness. These
factors would include the environment in which a program operates (e.g., funding opportunities), the types of clients served (e.g., the proportion with comorbid psychiatric conditions), and program policies and procedures, such as actions taken if a patient produces a urine that is positive for cocaine.

Typically, three major treatment phases can be identified: Admission, intreatment, and posttreatment. Patient-level data collection and analysis should occur during and between each treatment phase. The following sections discuss the variables that must be examined within each phase.

Admission

During this initial phase, pretreatment, or baseline, measures are developed regarding patient characteristics. Thorough evaluation should also include domains that have been shown to relate to patient outcomes (Phillips et al. 1994). Baseline measures and factors related to outcomes include the following:

- Patient demographics (age, race, gender, etc.)
- Past and present use of heroin and cocaine (especially frequency, amount, duration, route of administration, and age of onset)
- Legal issues or illegal activities (e.g., charges pending, such as possession of cocaine)
- Employment and financial status
- Education and training
- Social support systems (e.g., Does the patient spend time with people who use cocaine or other illicit drugs? Does the patient have any friends who do not use cocaine or other illicit drugs?)
- Living arrangements (e.g., Is the patient in a stable relationship? Does he or she live with drug-using individuals?)
- Physical and mental health, including psychiatric comorbidity
- Engagement in high-risk activities (e.g., needle sharing or sex with multiple partners)
- What is the average methadone dosage and program dosage range? What are the program guidelines regarding raising or lowering the dosage?
- What are the type and frequency of counseling activities? What is the educational level of the staff and what are the opportunities for in-service training?
- Does the program have a thought-out plan for dealing with patients with cocaine or alcohol problems?

It is also important for later analysis to ask the following about program characteristics:

- What criteria do the program use for admission?
- What is the program's average monthly admission rate?
- Does the admission rate correspond to the desired patient-counselor ratio and number of available treatment slots?
- What are the opportunities and constraints with current funding arrangements? (e.g., What services will the primary funding sources cover?)
**Intreatment**

As commonly prescribed by psychosocial research protocols, reassessment of the problem severity described above should be conducted at 1 and 3 months after admission and then every 3 months for at least the first year of treatment.

During the intreatment phase, it is necessary to begin collecting data on reductions in problem severity because such reductions are indicative of effective treatment. Comprehensive reviews of treatment plans (required by 21 CFR, § 291.505, some State regulations, and the JCAHO) and other patient records (e.g., counseling notes and arrest records) provide vital clues to understanding problem severity. The information provided by these records factors into the analyses of treatment effectiveness and should be included in the discussion of results. Day-to-day stresses and a crisis in the patient's life can have a profound effect on whether or not a patient succeeds in treatment.

A complete patient record should document urinalysis results (especially cocaine-positive urines), counseling and medication attendance rates, treatment goals and whether these were achieved, referrals (e.g., whether the patient has been referred to any cocaine-specific treatment or support groups, such as CA), and notes on other factors in the patient's life that may affect treatment effectiveness (e.g., personal crises such as a recent breakup with a partner or the death of a loved one).

**Posttreatment**

During this phase, analysis of all data collected through the entire treatment process (from admission to posttreatment) begins. Evaluation studies commonly identify the following two events as qualifying a patient for followup evaluation:

- **Successful completion of the treatment program**-Successful completion is defined as one of the following:
  - For the duration of treatment, the patient adheres to the treatment protocols (including cocaine-specific treatment policies) and is discharged from treatment following successful detoxification and achievement of abstinence.
  - The patient remains in the program for the duration of the evaluation study; maintains abstinence from heroin, cocaine, and other illicit drug use; and adheres to program rules.

- **Administrative discharges**-Three types of administrative discharge occur:
  - Program-initiated discharge occurs as a result of the patient's failure to adhere to treatment program protocols and guidelines; the patient's discharge is initiated by program staff.
  - Patient-initiated discharge occurs when the patient asks to be discharged from treatment or leaves treatment of his or her own accord prior to completion of the program as defined by treatment protocols.
  - Transfer includes both treatment-related and non-treatment-related transfers (e.g., due to job or family relocation or economic considerations) to another treatment program and may be suggested by the treatment staff or requested by the patient. For example,
a patient enrolled in an MTP for treatment of heroin abuse who consistently abuses cocaine while receiving methadone may be transferred because the patient needs a more highly specialized and intensive level of care, such as a methadone treatment facility offering a day treatment program or a contingency protocol for cocaine abusers.

At discharge, data should be collected on each patient participating in the evaluation study since the time of admission. It is important to review program criteria on discharge for cocaine abuse, as well as treatment approaches to cocaine abuse (e.g., referral to additional treatment programs, increased frequency of urinalysis, and contingency contracting).

The posttreatment phase is also the time to look at program retention rates: the average length of time patients remain in treatment. Along with overall retention rates, comparing rates of those who abuse both heroin and cocaine with those who abuse only heroin provides information specific to cocaine use issues.

It is important to ask about which treatment protocols must be followed and what special protocols are necessary for those who also abuse cocaine. Data should be gathered on whether patient needs are being met by the particular protocols being used. If protocols are deficient in meeting patient needs (e.g., lack of specialized services for those who abuse cocaine), areas of deficiency should be examined to determine what changes are necessary.

In MTPs, additional questions warrant investigation. For example, what is the average methadone dosage level and is it adequate? If the patient exhibits or reports symptoms of withdrawal or a strong and persistent craving to use heroin, dosage should be revisited and the patient's counselor and the program's medical director should determine whether or not the patient may benefit from a dosage increase. Further, the evaluator should ask whether patients participate in these decisions about dosage.

Data Analysis

The evaluator should analyze data in relation to the predetermined operational definition of success in treatment (e.g., reduction in patient problem severity rating on a given patient characteristic, such as reduction in cocaine use or spending less time with drug-using friends). Several possible methods can be used to develop these predetermined success rates. One is for a group of informed individuals, such as key staff members, to agree upon a set of goals for patients as a whole. Another is to compare the program's success rates longitudinally. For example, compare the success rate for a particular period in the current year with that of the same period for the previous year. (Using data from the same time of year helps to control for any seasonal variations in patient behaviors.) A third option is to compare a program's success rates with those of other programs. Obtaining success rates for other programs, however, may be difficult.

Results providing a point of comparison on narcotic addiction program outcomes are available from two large-scale national studies, the Drug Abuse Reporting Program (DARP) and the Treatment Outcome Prospective Study (TOPS). A major limitation of these studies is that both were conducted before the widespread use of cocaine. The successor study, the Drug Abuse
Treatment Outcome Study (DATOS), is currently under way in 11 cities nationwide and includes a significant number of narcotic addiction treatment programs. This study will include findings related to cocaine use among patients in narcotic addiction programs. However, results from this study will not be available for several years.

In addition, NIDA is funding the Methadone Treatment Quality Assurance System (MTQAS) study, which includes 25 narcotic treatment programs across the Nation. Findings from this study, which should be available by the end of 1994, may also yield a point of comparison. Rates of successful and unsuccessful treatment are measured by comparing patient severity ratings between the various components of the evaluation (e.g., admission, intreatment, and discharge). Changes (negative or positive) in severity ratings are then analyzed to determine whether or not any correlations exist between the increase or decrease in severity and other factors, mainly patient demographics (e.g., age, race, and gender) and patient characteristics (e.g., age of onset for heroin use and history of cocaine use).

In another NIDA-supported study, completed in 1993, McLellan and others found that patients maintained on methadone who received either a standard or enhanced package of counseling and professional services had dramatically better treatment outcomes than those patients who received only methadone. Methadone alone was not sufficient to reduce opioid or cocaine use in most patients nor did it decrease associated psychiatric and medical problems. Earlier, the opposing case was made by Yancovitz and coworkers (1991), who argued that methadone maintenance alone is better than no treatment at all.

Until DATOS results are available, TOPS provides the most up-to-date data on treatment effectiveness. It should be noted in reading the TOPS results that programs participating in TOPS tended to focus on treating patients' abuse of their drug of choice rather than on their multiple drug use. However, the TOPS endeavor did produce convincing evidence that long-term treatment is effective in reducing drug dependency (Hubbard 1992); other research supports this finding (D'Aunno and Vaughn 1992). TOPS data did not allow researchers to draw any conclusions regarding the match of particular types of patients (e.g., patients using heroin and cocaine concurrently) with particular types of treatment; this question may still be unanswered. Analyses show, however, that the daily posttreatment rate of heroin and cocaine use was half the pretreatment rate for patients who stayed in treatment for at least 3 months.

It is hoped that the analysis of data from future studies, such as those mentioned above, will provide information on which factors are most often associated with patients who benefit from treatment and, if possible, which factors are associated with those who do not.

Analysis of Factors in Program Effectiveness

Two sets of variables should be examined when evaluating program effectiveness: treatment variables and program variables.
Treatment Variables

The following is a list of treatment factors that may be examined in evaluating the effectiveness of treatment of cocaine and other types of substance abuse among patients receiving methadone:

- Treatment protocols (especially policies specific to cocaine use)
- Average treatment duration
- Types of therapy and counseling provided (especially whether cocaine-specific counseling is provided)
- Access to community resources (e.g., AA or CA groups)
- Type of staff available on site and level of staff training
- Patient-counselor ratios
- Average methadone dosage

Program Variables

Finally, program operations are examined to determine whether program variables influence the level of treatment effectiveness. At this point in the analysis, the evaluator should consider information on program costs, including allocations to various components of the program, and available funding. Examination of financial issues, such as cost per patient per day, and outcome measures over time, may yield information on the interplay between fiscal issues and program effectiveness. Likewise, considering variations in costs associated with specific program activities (e.g., counseling over time) may yield information on the value gained from those activities by comparing costs with outcomes. Treatment may be improved with increased financial resources or more efficient use of existing resources.

Factors to be included in program examination include the following:

- Program location and proximity to outside resources
- Facility structure and atmosphere
- Hours of operation
- Staff turnover
- Funding changes

Supplementary Evaluation

Because of the critical nature of the MTP evaluation process, measures should be taken to itemize and detail the findings with regard to Federal, State, and local MTP regulations; that is, are program protocols and facilities operating in compliance with these restrictions and guidelines? If not, what are the changes necessary to achieve compliance, and could merely instituting these changes result in treatment improvement? The future calls for more research in the area of MTP effectiveness, not just measuring treatment effectiveness of a particular program but also looking at how to structure national MTP service improvement.
The Consensus Panel appreciates the review and comments of James Luckey, Ph.D., research psychologist, Substance Abuse Treatment Research Program, Research Triangle Institute, on this chapter.
Chapter 7-Consensus Panel Recommendations for Further Research

Much of the research on treating patients for opioid and cocaine abuse has focused on treatment for either opioid or cocaine dependency. Recent research has concentrated on cocaine use by concurrently dependent methadone treatment patients. A variety of studies have been conducted with these patients to address the use of pharmacotherapies and psychosocial interventions. As noted previously in this TIP, methadone used for treating opioid addiction has a limited impact on cocaine abuse, and the details of how cocaine and methadone or other opioid maintenance treatment drugs interact remain a question.

Progress has been made, however, in identifying possible approaches appropriate for treating both problems. Several studies of the use of contingency management, antidepressants, and opioid maintenance agents in treating concurrently dependent patients show promising but not definitive results. In addition, a variety of other approaches to treating concurrent dependence have been tried, including acupuncture, amino acid therapy, hypnosis, and meditation. Data showing the efficacy of these approaches are lacking.

This chapter reviews current knowledge about treatment approaches being researched and suggests areas for further research.

Pharmacotherapies

Several medications are being researched to evaluate their effectiveness for treating patients concurrently dependent on opioids and cocaine. Most of the studies, however, have been hampered by methodological problems including lack of adequate controls, lack of consistent outcome measures, and lack of standardized types and intensity of accompanying psychosocial interventions (American Psychiatric Association 1994). Over 30 medications have been studied, including a variety of antidepressants, dopamine agonists, alternative agents to methadone, and other pharmacologic agents purported to either block the acute effects of the stimulant or reduce drug craving.

It must be noted that these medications should be used only in controlled research settings. Many of the medications are potentially toxic and should not yet be used as part of a larger methadone treatment protocol until further evaluation has proven their efficacy. In particular, naltrexone
would precipitate methadone withdrawal in such patients, and the use of buprenorphine is also contraindicated for them.

| Medications Under Evaluation for Use With Patients Concurrently Dependent on Opioids and Stimulants |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|
| **Antidepressants**                                                                             | Bupropion                                        |
|                                                                                                 | Desipramine                                      |
|                                                                                                 | Fluoxetine                                       |
| **Dopamine Agonists**                                                                           | Amantadine                                       |
|                                                                                                 | Bromocriptine                                    |
| **Alternative Agents to Methadone**                                                             | Buprenorphine                                    |
|                                                                                                 | Levo-alpha-acetylmethadol (LAAM)                 |
|                                                                                                 | Naltrexone                                       |
| **Other Pharmacologic Agents**                                                                  | Mazindol                                         |
|                                                                                                 | Selegiline                                       |

**Contingency Management**

As discussed in chapter 4, some MTPs implement contingency contracts with their patients. These techniques have received extensive systematic evaluation. However, more information would be useful to assess the effectiveness of specific contingency contract procedures, to work out optimal parameters and conditions for implementation, to develop more effective interventions, and to determine the characteristics of multidrug-abusing patients who respond to different types of interventions.

**Acupuncture, Electroacupuncture, and Cranial Electrostimulation**

Acupuncture, electroacupuncture, and cranial electrostimulation are techniques that have recently been used in treating opioid addiction. Acupuncture is the insertion of thin needles subcutaneously into the body at specific points that represent centers of energy. Electroacupuncture refers to the procedure of applying small amounts of electricity to needles or staples applied to the skin at acupuncture points. Cranial electrostimulation is the application of small amounts of electricity to the central nervous system through electrodes applied to the skin over the cranium.

In China, acupuncture is widely used as a therapy for a variety of ailments. It is believed that the normal functioning of the body depends on a balance of two opposite polar energies, yin and yang. These energies flow along lines of the body called meridians. There are approximately 1,000 acupuncture points along each meridian. Stimulation of the points by needles is believed to
correct the imbalance of energy flow, release blockages of energy, and enhance the body's natural capacity to heal itself (Nebelkopf 1981). Effective relief of narcotic withdrawal symptoms with acupuncture was first recorded in Hong Kong in the early 1970s (Wen and Cheung 1973).

Acceptance of such techniques in the United States has been slow because of the scarcity of controlled clinical studies of efficacy, although Bullock and coworkers (1989) report on studies conducted for severe recidivist alcoholism. Research in laboratory models has provided some evidence that acupuncture's effects are due to stimulation of the body's endogenous opioids. These endogenous opioids are naturally occurring neurotransmitters in the body with analgesic properties and thus may work to reduce the painful symptoms associated with drug withdrawal.

Although acupuncture is not viewed as a cure for addiction, it has been used to ameliorate withdrawal symptoms and drug craving in some patients, and positive effects have been claimed in the following areas:

- Retention in treatment and corresponding decrease in relapse
- Enhancement of other treatment processes due to reduction in anxiety
- Reduction in sleep problems and nightmares that patients in detoxification treatment frequently experience (Bullock et al. 1989; Smith 1986)

Acupuncture is also frequently used for symptomatic treatment of early abstinence as well as part of a comprehensive treatment plan including psychosocial services, drug testing, and social reintegration. It can be cost effective in an outpatient setting because equipment needs are minimal and overhead is low; in addition, advances in treatment technology have made disposable acupuncture needles available.

No known existing outcome studies adequately test the efficacy of acupuncture, electroacupuncture, and cranial electrostimulation for treatment of concurrent dependencies or for cocaine alone. Acupuncture may be most helpful as an adjunct to other therapies rather than as a stand-alone treatment. It is believed that the best results occur when acupuncture is combined with psychosocial and biomedical treatment strategies. Further research is required to verify use of these treatment modalities and to develop standards for their use.

**Amino Acid Therapy**

Reports that amino acid therapy has been useful in treating cocaine dependency have been published. These reports claim that administration of amino acids that are precursors for neurotransmitters involved in cocaine use will replenish the supply of neurotransmitters depleted by such abuse (Trachtenberg and Blum 1988). Further research is needed to test this theory.

**Hypnosis**

Hypnosis has been used in treating phobias and nicotine dependence, and clinicians have reported its use to treat a variety of other addictions. Minimal documentation exists on using hypnosis to treat heroin and cocaine addictions.
Meditation

Transcendental meditation (TM) is one of several approaches to meditation. TM uses a focused mental relaxation technique practiced twice a day for 20 minutes. It has been reported to be effective in diminishing stress and results in a broad range of physiological, psychological, social, and intellectual benefits (O'Connell 1991). As an adjunct to substance abuse treatment, TM theoretically could reduce the frequency and intensity of drug cravings, as well as improve psychological and emotional functioning. In describing TM's appropriateness, Bloomfeld (1975) points out that it is compatible with AA and NA program philosophy and can potentiate the effects of counseling, psychotherapy, and other ongoing treatment components.

While research is not currently available on other types of meditation for substance abusers, given similar principles and benefits, meditation in general may prove to be an effective adjunct to more traditional treatment approaches.

Areas for Further Research

The current studies of treatment approaches indicate the need for further research. Lack of data replication poses questions about the implications of study results. Large-scale clinical trials to assess the efficacy of various medications have not been conducted. Confusion over the distinction between use, abuse, and dependence on concurrently used substances causes difficulty in defining appropriate treatment services for individual patients. Standardization and refining of instruments to detail drug patterns, routes of administration, and duration of use is important for the field to advance.

A variety of research topics have been suggested by Consensus Panel members and consultants:

- Analyses of the pharmacological interactions between cocaine and methadone, LAAM, buprenorphine, and naltrexone
- Analyses of the interactions between methadone and other opioid maintenance medications (including LAAM, buprenorphine, and naltrexone) and antidepressants used to treat cocaine craving
- Assessment of the consequences of various clinic policies regarding patient length of stay and retention issues
- Analysis of the determinants of successful patient-treatment matching
- Assessment of the efficacy of various medications
- Analysis of the efficacy of acupuncture, using an appropriate study design
- Analysis of the efficacy of amino acid therapy, using an appropriate study design
- Assessment of the characteristics that may predict changes in cocaine use
- Assessment of risk factors for concurrent addiction
- Evaluation of the interplay of psychological/psychiatric factors and concurrent addiction, including details of the relationships between age, frequency and time of drug use, and onset of symptoms
- Assessment of patterns of use in concurrently addicted individuals
These and other areas of research require further exploration before definitive statements can be made regarding the assessment and treatment planning for cocaine-abusing methadone-maintained patients.
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

Treatment Improvement Protocol (TIP) Series 10

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Appendix A - Glossary

abruptio placenta:

Premature detachment of a normally situated placenta

aerosolized pentamidine:

A prophylactic drug used in the prevention of Pneumocystis carinii pneumonia (PCP)

agonist:

A chemical that stimulates a response at a cell receptor site

agoraphobia:

A marked fear of leaving home and/or being in public places

alexithymia:

An inability to identify one's feelings

amantadine:

An antiviral drug that has been tried for the treatment of cocaine withdrawal symptoms

amenorrhea:

Abnormal absence or suppression of menstruation

amnionitis:

Inflammation of the amnion or inner membrane surrounding the fetus

anergy/anergia; anergic:

Absence of a demonstrable sensitivity reaction in a subject to substances that would be antigenic (immunogenic, allergenic) in most other subjects
anergy panel:
A test administered to determine the presence of anergia

anhedonia:
Loss of ability to feel pleasure in acts that normally cause pleasure

Antisocial Personality Disorder:
A disorder that includes a pattern of irresponsible and antisocial behavior that began in childhood or early adolescence and has continued into adulthood. For this diagnosis to be given, the individual must be at least 18 and have been diagnosed with Conduct Disorder before age 15.

anxiolytics:
Drugs used to treat anxiety; the most common members of the benzodiazepine class

Attention-Deficit Hyperactivity Disorder:
A disorder that includes inappropriate degrees of impulsiveness, inattention, and hyperactivity

azidothymidine (AZT) (now called zidovudine):
An antiviral drug used in treating Acquired Immunodeficiency Syndrome (AIDS)

bacteremia:
The presence of viable bacteria in the circulating blood

benzoylecgonine:
The major metabolite of cocaine

Bipolar Disorder:
A disorder that includes at least one manic episode and is generally accompanied by at least one major depressive episode

blood-brain barrier:
A membrane that separates brain tissues from circulating blood

Borderline Personality Disorder:
A disorder beginning in early adulthood that features a pattern of unstable self-image, moods, and interpersonal relationships and occurs in a variety of contexts
bromocriptine (Parlodel):  
A drug that has been tried in the treatment of cocaine withdrawal

buprenorphine (Buprenex):  
A partial agonist, useful in treating opioid dependence

bupropion (Wellbutrin):  
An antidepressant that has been tried in the treatment of acute cocaine craving and use

cardiac disease:  
Disease affecting the heart

cardiopulmonary disease:  
Any disease related to the heart and lungs

cellulitis:\nDiffuse inflammation of soft tissue

cerebral infarction:  
Interference of blood flow to the brain that results in the death of brain tissue

chlamydia:  
A sexually transmitted disease. Symptoms may include moderate or scanty discharge, urethral itching, and burning on urination; however, patients are often asymptomatic.

chorioamnionitis:  
Fetal membrane inflammation caused by bacterial infection

cognitive-behavioral therapy:  
A psychotherapeutic method that seeks to replace inadequate coping skills by emphasizing changing behavior or distorted ways of thinking that contribute to problems


cognitive reframing:  
A relapse prevention skill training strategy that helps the drug-dependent patient find new responses to high-risk factors

compartmentalization:
Mental process by which people, places, and things are psychologically divided or partitioned into compartments or categories

congenital anomalies:

Structural or physiological abnormalities that develop before birth

coping imagery:

A therapeutic technique by which the therapist leads the patient through an alternating series of images, one set pleasant and the other anxiety-provoking, to reduce anxiety by associating the anxiety-provoking situation with a pleasant image

cranial electrostimulation:

Application of small amounts of electricity to the central nervous system using electrodes applied to the skin surface of the cranium

cross-tolerance:

A diminished response to the effects of a psychoactive chemical because of prior use of another psychoactive chemical in the same pharmacological class

cue exposure:

A cognitive-behavioral intervention that employs gradual exposure to cues to desensitize the drug-dependent patient to those cues

depression:

Depressed mood or the loss of interest or pleasure in activities. Symptoms include decreased energy, feelings of worthlessness, appetite disturbance, weight change, feelings of inappropriate or excessive guilt, psychomotor agitation or retardation, difficulty thinking or concentrating, recurring thoughts of death or suicide, or suicide attempts.

desipramine:

An antidepressant drug that may relieve cocaine craving and decrease cocaine use in certain groups of patients

diabetes:

A disorder in which an inadequate amount of insulin is produced by the pancreas. (Gestational diabetes refers to glucose intolerance occurring only during pregnancy.)

diagnostic assessment instrument:
A questionnaire administered for the purpose of obtaining information about medical, psychological, and substance abuse problems

dopamine:
A neurotransmitter that is the intermediate biochemical product occurring in the synthesis of norepinephrine, epinephrine, and melanin. Abnormalities of dopamine regulation may cause depression or psychosis.

dopamine agonists:
Chemicals that stimulate responses at dopamine receptor sites

dysphoria:
An emotional state characterized by restlessness, anxiety, and depression

Dysthymic Disorder:
A chronic but less intense form of depression

eclampsia:
Convulsions and coma that result from any of several conditions during or immediately following pregnancy

edema:
Excess accumulation of serous fluid in tissues

electroacupuncture:
Application of small amounts of electricity to staples or needles at the acupuncture points for opioid withdrawal treatment

endocrine function:
The complicated hormonal system that regulates various body processes (e.g., metabolism, growth, temperature, sexual activity, and stress response)

endogenous opioids:
Naturally occurring neurotransmitters in the body with analgesic properties

enzyme immunoassay:
A technique for analyzing and measuring the concentration of various drugs in bodily fluids such as urine or blood
fluoxetine (Prozac):

An antidepressant that has been tried as a medication to reduce cocaine craving

half-life:

Time required by living tissue, an organ, or an organism to eliminate, by biological processes, half the quantity of a substance that has been ingested

haloperidol (Haldol):

An antipsychotic drug used to treat such mental illnesses as mania and schizophrenia

harm reduction:

A philosophical approach to drug treatment recognizing that since there is not a "cure" for illicit drug abuse, steps should be taken to reduce individual and social harm caused by drug abuse

hepatic disease:

Disease of the liver

hepatitis:

Inflammation of the liver, usually from a viral infection, but sometimes from toxic agents

hyperphagia:

Ingestion of an excess of food

hypersomnolence:

Abnormal or excessive drowsiness or sleepiness

hypertension:

Abnormally high blood pressure

hypnosis:

An altered state of awareness in which the individual is extremely responsive to suggestions of the hypnotist

hypnotics:

Sleep-inducing drugs (e.g., barbiturates)

ideation:

The process of imagining, conceiving, or forming an idea
immune response:

The production of immunoglobulins, antibodies, lymphocytes, and other substances and cells to defend the body against invading foreign materials or substances (e.g., cancer cells, invading organisms, transplanted tissues)

immunocompromised:

Refers to individuals whose immune systems are damaged, today most commonly those with HIV infection

interferon:

A drug that inhibits the multiplication of viruses and increases the number of certain lymphocytes that are part of the body's immune system; also, the group of proteins that the body produces naturally

levo-alpha-acetylmethadol (LAAM):

A synthetic opioid analgesic, similar to methadone but much longer acting (it is given every third day rather than daily like methadone). It gradually produces an abstinence syndrome after chronic administration has been stopped. Symptoms are less severe than with other opioids.

lithium:

A drug used in treating bipolar disorder and mania

mania (manic):

A manifestation of bipolar disorder characterized by physical overactivity, exaggerated gaiety, and a profusion of rapidly changing ideas

MAO inhibitors:

A class of antidepressant drugs

mazindol:

A dopamine reuptake blocker that has been tried as a treatment for cocaine craving and use

metabolite:

Any of several organic compounds produced by the process of metabolism

morbidity:

A state or condition of severe illness or disease

naloxone (Narcan):
A short-acting, injectable drug that acts as an antagonist against narcotic drugs; used mainly to treat opiate overdose or as a diagnostic tool for the presence of opiate dependence

**naltrexone (Trexan):**

A long-acting, orally effective drug that inhibits the euphoric effects of narcotics and is used as a maintenance therapy for addicts

**Narcan challenge:**

Administration of naloxone to determine opioid dependence

**neonatal abstinence syndrome:**

A disorder in infants of drug-dependent women characterized by central nervous system hyperirritability, respiratory distress, gastrointestinal dysfunction, and autonomic symptoms such as sneezing, yawning, mottling, and fever

**neuroendocrine:**

The interactions between the endocrine and nervous systems

**neuroleptics:**

Drugs used to treat psychosis

**neurotransmitters:**

Chemicals produced by nerve cells that play a role in nervous system communication

**noradrenaline:**

A neurotransmitter, formed naturally in the body's sympathetic nerve endings and adrenal gland, which controls a number of brain systems and is implicated in mood and anxiety disorders as well as aggressive behavior

**obsessive-compulsive:**

Describes a disorder characterized by obsessions (persistent thoughts, ideas, impulses, or images that are experienced as senseless and intrusive) and compulsions (purposeful, intentional, and repetitive behaviors that are performed as a response to the obsessions and are meant to neutralize or prevent discomfort or some dreaded situation)

**opioid receptors:**

Certain receptors (mu, delta, kappa, and lambda) on cell membranes of neurons and other cells, such as white blood cells, that produce specific physiological responses when opioid drugs are used
panic attack:

A period of extreme discomfort that often begins unexpectedly with a feeling of intense apprehension, doom, or fear and is accompanied by at least four associated symptoms (see panic disorder)

Panic Disorder:

A condition characterized by recurring panic attacks and at least four of the following symptoms: Numbness or tingling sensations; shortness of breath or smothering sensations; trembling or shaking; choking; sweating; palpitations or accelerated heart rate; flushes or chills; dizziness, unsteady feelings, or faintness; nausea or abdominal distress; chest pain or discomfort; depersonalization or derealization; fear of dying; and fear of going crazy or doing something uncontrolled

paranoid psychosis:

A fundamental mental derangement characterized by delusions of grandeur or persecution

parenteral drug abuse:

Drug abuse wherein the route of administration is injection

phobia:

A persistent and irrational fear of a specific stimulus (an object or a situation)

piloerection:

Erection of the hair

posttraumatic stress disorder:

A chronic state of anxiety that occurs after a frightening or stressful event, such as assault or rape, military combat, torture, serious physical injury, or natural disasters. Symptoms may include difficulty falling asleep, recurrent distressing dreams, exaggerated startle response, hypervigilance, difficulty concentrating, and changes in aggression.

PPD (purified protein derivative) positive:

Positive results of a skin test for tuberculosis. This test is used as a screening method to identify individuals who have been exposed to TB.

prophylactic medication:

A drug used to prevent disease

psychiatric comorbidity:
The presence of psychiatric illness in conjunction with drug addiction; also known as dual diagnosis

**psychopathology:**

Pathological mental illnesses

**psychosis:**

Severe mental disorder, characterized by partial or complete withdrawal from reality and diminishment of normal social and intellectual functioning

**psychotropic medication:**

Medication for mental illness that has an altering effect on the mind

**radioimmunoassay:**

A laboratory technique used to diagnose infectious diseases and allergies and to measure blood hormone concentrations. It can also determine the presence or absence of antigens, antibodies, or other protein such as hormones

**recidivist:**

Describes the tendency to relapse into a former behavior pattern, such as criminal activity

**rhinorrhea:**

Nasal discharge of watery mucus

**rifampin:**

An antibacterial drug used in treating tuberculosis

**schizophrenia:**

A mental disorder, usually beginning in adolescence or early adulthood, characterized by psychotic symptoms that have been present for at least 6 months, including hallucinations, delusions, or specific disturbances in affect and form of thought

**septicemia:**

A systemic disease caused by the spread of microorganisms and their toxins through the bloodstream accompanied especially by chills, fever, and prostration. Also known as blood poisoning.

**septic thrombophlebitis:**

Infection of the veins that has led to a blockage of the venous system
serological test:

A test involving analysis of the blood serum, often used to test for syphilis

serotonin:

A neurotransmitter that helps to regulate mood and behavior; abnormalities in serotonin levels appear to be associated with aggression, impulsivity, anxiety, and eating disorders

sickle-cell (trait or anemia):

A hereditary disease characterized by an abnormal hemoglobin that causes the red blood cells to change to a sickle shape when there is insufficient oxygen. Symptoms can include leg ulcers and frequent pain.

social phobia:

A persistent and irrational fear of certain social situations, characterized by the individual’s fear that he or she may do something embarrassing or humiliating

spontaneous abortion:

The loss of an embryo or fetus prior to the stage of viability (at about 20 weeks of gestation) as a result of natural causes

stillbirth:

The birth of a dead child or fetus

subcutaneous:

Located just beneath the skin

sudden infant death syndrome (SIDS):

The unexpected death of an apparently healthy baby, usually occurring during sleep, without apparent cause

sympathomimetics:

Those agents that stimulate the sympathetic nervous system

tachycardia:

Very rapid heartbeat, over 100 beats per minute

titration (titrate):

The process of identifying the concentration of a substance in a solution
T-lymphocyte cells:

Special type of white blood cells that fight infection. Their numbers usually decrease in active cases of AIDS.

toxicology:

The study of poisons - their nature, effects, and detection - and the treatment of poisoning

tricyclic antidepressants:

A class of drugs used to treat depression

vascular disease:

A disease affecting the blood vessels
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients
Treatment Improvement Protocol (TIP) Series

Appendix B - Levels of Care

In general, alcohol and other drug treatment can be understood as a spectrum of treatment options representing differences in setting, types and range of services, and intensity of service use and delivery. The goal of treatment is to place the patient in the appropriate level of care; that is, to provide the specific services needed by each patient, at the appropriate level of intensity, within the appropriate setting. Since the severity of the individual's illness is likely to fluctuate over time, the level of care should change accordingly.

The spectrum of treatment options required by patients concurrently dependent on opioids and stimulants represents similar requirements in regard to levels of care. The best treatment setting for these patients is a comprehensive program that integrates effective interventions for narcotic treatment with specific treatment for stimulant abuse and a full array of social and community support services. Ongoing assessment should ensure that the patient is receiving the appropriate services as often as needed and within the appropriate setting.

American Society of Addiction Medicine (ASAM) Levels of Care

Many organizations, including managed care organizations, have developed guidelines regarding levels of care to be used in treating AOD abuse. The ASAM guidelines are presented here as an example of such guidelines. Although they have not been empirically evaluated, the guidelines were developed through extensive collaboration with providers, payers, and other addiction experts. Listing them here should not be considered a recommendation or confirmation of their efficacy.

ASAM's four levels of care for AOD abuse treatment are described in Patient Placement Criteria for the Treatment of Psychoactive Substance Use Disorders (Hoffman et al. 1991). They are presented here, with brief descriptions of settings and services:
• Level I: Outpatient treatment - An organized nonresidential treatment service or an office practice with designated addiction professionals and clinicians providing professionally directed AOD treatment. This treatment occurs in regularly scheduled sessions usually totaling fewer than 9 contact hours per week. Examples include weekly or twice-weekly individual therapy, weekly group therapy, or a combination of the two in association with participation in self-help groups.
• Level II: Intensive outpatient treatment (including partial hospitalization) - A planned and organized service in which addiction professionals and clinicians provide several AOD treatment service components to clients. Treatment consists of regularly scheduled sessions within a structured program, with a minimum of 9 treatment hours per week. Examples include day or evening programs in which patients attend a full spectrum of treatment programming but live at home or in special residences.
• Level III: Medically monitored intensive inpatient treatment - Can be described as an organized service conducted by addiction professionals and clinicians who provide a planned regimen of around-the-clock professionally directed evaluation, care, and treatment in an inpatient setting. This level of care includes 24-hour observation, monitoring, and treatment. A multidisciplinary staff functions under medical supervision. An example is a program with 24-hour nursing care under the direction of physicians.
• Level IV: Medically managed intensive inpatient treatment - An organized service in which addiction professionals and clinicians provide a planned regimen of 24-hour medically directed evaluation, care, and treatment in an acute care inpatient setting. Patients generally have severe withdrawal or medical, emotional, or behavioral problems that require primary medical and nursing services.

Several AOD treatment service models do not fit precisely within these four levels of care. These service levels include halfway houses and extended residential programs such as therapeutic communities. These programs are designed for people who do not have housing, who experience housing instability, or who lack an organized support system. These programs are often used in conjunction with intensive outpatient treatment or inpatient treatment.

In addition to describing the levels of care, the ASAM patient placement criteria also provide specific guidelines for patient placement decisions. As the treatment needs of patients change, clinicians should make recommendations for their transition from one level of care to another.

Six dimensions of illness are described:

• Acute intoxication and/or withdrawal potential
• Biomedical conditions and complications
• Emotional and behavioral conditions or complications
• Treatment acceptance and resistance
• Relapse potential
• Recovery environment (Hoffman et al. 1991)

Within each dimension, specific assessment criteria help to determine the appropriate level of care for patients.

Table 1 on the following page provides an overview of the adult admission criteria described in
the ASAM guidelines.

As noted in the CSAT TIP, Intensive Outpatient Treatment for Alcohol and Other Drug Abuse: The overall intent of patient placement guidelines is to place a person in the least intensive level of care that will achieve AOD treatment objectives without sacrificing safety or security. The ultimate goals of the guidelines are to improve the effectiveness of care, to ensure access to affordable care, and to support the development of cost-effective treatment systems. They are also an attempt to establish patient placement criteria that are acceptable to all treatment providers and payers. They support efforts to establish a common language for AOD abuse treatment, to agree on consistent placement decisions, and to provide a focus for future research efforts. These criteria should be considered dynamic, not fixed. Future revisions are likely to be driven by research results and further review and application by the field (1994b).

The ASAM criteria continue to be reviewed and studied.

As indicated earlier, States and certain other regulatory bodies may have their own guidelines regarding levels of care. For example, the Addiction Group of the American Psychiatric Association is establishing AOD abuse treatment guidelines that can be considered by intensive outpatient treatment programs when clarifying placement criteria. In addition, CSAT, which has already developed a Model for Comprehensive Alcohol and Other Drug (AOD) Abuse Treatment (see table 2), is currently developing a TIP on levels of care and patient matching within MTPs.

Levels of Care for Cocaine-Abusing Methadone-Maintained Patients

During the course of its work, the Consensus Panel for this TIP suggested a spectrum of care for methadone-maintained patients who abuse cocaine. While acknowledging the financial challenges that would result from any attempt to implement comprehensive services for these patients, the panel also suggested that the development of such services should be a high priority. Programs are therefore encouraged to use their resources creatively to develop a spectrum of services that is as broad as possible, either individually or in collaboration with other programs in their area or region.

The levels of care envisioned by the Consensus Panel are similar to those developed by ASAM, except that they specifically include the provision of opioid substitution therapies as one component of treatment. The levels are briefly described on page 83. Examples of services offered within each level reflect the results of a modest survey of MTPs that offer cocaine-specific treatment components.

- Level I - In this standard MTP, patients abusing stimulants are encouraged to participate in Cocaine Anonymous (CA) or other self-help groups, which may be hosted on site, and/or in special groups conducted by program staff for patients with urine toxicologies positive for stimulants. When necessary, patients are referred for short-term inpatient detoxification. Staff receive training on how to intervene with stimulant-abusing patients and may require the patients to attend additional counseling sessions. Implementing this level of care does not require additional funding; it may require a slight revision in staff responsibilities.
• Level II - In addition to the services provided at Level I, the MTP provides on-site group or individual counseling sessions one to three times per week specifically for stimulant abusers plus psychoeducational groups and self-help involvement. Urine testing may be increased, often to once per week. Some programs offer acupuncture or alternative medications as strategies for intervening with the stimulant abuse; others have developed rewards for stimulant-negative urines (e.g., theater tickets) or help patients set up accounts into which they deposit money that would have otherwise been spent on stimulants. Increased costs are associated with urine testing (unless patient payment is required) and increased counselor or other staff time.

• Level III - The MTP offers a cocaine-specific treatment track, which includes all of the services offered at Level II plus positive contingency management and intensive relapse prevention efforts. Additional services may be offered as well.

One surveyed program provides intensive, highly structured cognitive-behavioral treatment for patients who meet diagnostic criteria for cocaine dependence. Treatment, which is based on a model developed by Matrix Institute on Addictions, consists of two individual and two to three group sessions per week for 6 months. During this treatment period, the cognitive, behavioral, emotional, and interpersonal aspects of cocaine use are addressed. Session materials are drawn from the manual developed by Matrix Institute and use very concrete cognitive-behavioral and relapse prevention techniques. The primary costs for this program are associated with staffing. Patients in this program, which is being formally evaluated, have shown significant declines in cocaine and other drug use, as well as significant improvement in psychological status.

• Level IV - Stimulant-dependent MTP patients participate in a structured day treatment or evening program that provides all the services offered at Level III plus education and social support services, 5 days per week.

One of the programs surveyed offers this level of care to narcotic addicts age 16-23 for whom opioid substitution therapies have been deemed appropriate. Another operates within the framework of a modified therapeutic community concept. Primary costs are associated with staffing, rent, utilities, insurance, and supplies and equipment. Research data from both programs document the success of this level of care.

• Level V - Patients at this level participate in a therapeutic community (TC), while continuing to receive opioid substitution therapy. The services provided at this level include group and individual counseling, family counseling, milieu therapy, social support services, education and vocational services, and so forth. The costs associated with this level of care have been well documented.

In some areas, MTP and TC staffs have begun to explore the possibility of treating MTP patients in existing traditionally "drug-free" TCs. Numerous complex problems must be resolved before this idea can become a reality; however, the concept represents an exciting new direction in AOD treatment.

• Level VI - Patients at this level of care participate in inpatient substance abuse treatment. The program may be medically monitored and offer the services provided at Level III of the ASAM spectrum or medically directed, comparable to Level IV in the ASAM structure.
The Maryland AOD agency now requires all AOD programs, including those providing inpatient substance abuse treatment (e.g., 28-day inpatient treatment and inpatient detoxification), to accept MTP patients who meet admission criteria and to maintain them on opioid substitution therapies. Implementing this policy has presented numerous problems, but again, the concept promises to broaden the spectrum of available treatment opportunities for methadone-maintained patients who abuse cocaine.

Summary

The levels of treatment suggested by the Consensus Panel members represent an attempt to develop a spectrum of services for MTP patients dependent on stimulants. At each additional level, more services are offered, at a greater level of intensity and increased cost. Programs are encouraged to increase the levels of care available to their patients, using a variety of creative strategies, including those noted in the previous sections. Ongoing assessment can then ensure that patients receive appropriate levels of care as they progress toward recovery.

¹The information provided in this section is adapted from a draft version of Intensive Outpatient Treatment for Alcohol and Other Drug (AOD) Abuse: The Recommendations of a Consensus Panel (CSAT 1993a).
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Appendix C - Acronyms

AA

Alcoholics Anonymous

ADHD

Attention Deficit Hyperactivity Disorder

ADM disorder

alcohol, drug, and mental health disorder

AIA

AIDS Initial Assessment Questionnaire

AIDS

acquired immune deficiency syndrome

AOD

alcohol and other drug

ASAM

American Society of Addiction Medicine

ASI

Addiction Severity Index

ASP disorder
antisocial personality disorder

AZT
azidothymidine

BDI
Beck Depression Inventory

CA
Cocaine Anonymous

CAGE
Cut Down, Annoyed, Guilty, Eye-Opener

CARF
Commission on Accreditation of Rehabilitation Facilities

CDC
Centers for Disease Control and Prevention

CFR
Code of Federal Regulations

CNS
central nervous system

COSA
Children of Substance Abusers

CSAT
Center for Substance Abuse Treatment

DARP
Drug Abuse Reporting Program

DAST
Drug Addiction Severity Test
DATOS
Drug Abuse Treatment Outcome Study

DAWN
Drug Abuse Warning Network

DEA
Drug Enforcement Administration

DHEW
Department of Health, Education and Welfare

DIS
Diagnostic Interview Schedule

DSM-III-R
Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised

DSM-IV
Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition

ECA
Epidemiologic Catchment Area

FDA
Food and Drug Administration

GAO
General Accounting Office

GED
general equivalency diploma

HIV
human immunodeficiency virus

ICD-10
International Classification of Disease, 10th revision

IDUs
injecting drug users

IND
investigational new drug

INH
isoniazid

IPT
Interpersonal Psychotherapy model

IV
intravenous

JCAHO
Joint Commission on the Accreditation of Healthcare Organizations

LAAM
levo-alpha-acetylmethadol

MA
Methadone Anonymous

MAO inhibitors
monoamine oxidase inhibitors

MAST
Michigan Alcoholism Screening Test

MDI
Bayley Mental Development Index

MDR TB
multidrug-resistant tuberculosis
MTQAS study
  Methadone Treatment Quality Assurance System
NA
  Narcotics Anonymous
NADAP
  National Association for Drug Abuse Problems
NIDA
  National Institute on Drug Abuse
NIMH
  National Institute of Mental Health
NTP
  narcotic treatment program
OEO
  Office of Economic Opportunity
ONDCP
  Office of National Drug Control Policy
OSHA
  Office of Safety and Health Administration
PCP
  phencyclidine
PCP
  Pneumocystis carinii pneumonia
PDI
  Motor Development Index
PPD
purified protein derivative

QSOA
Qualified Service Organization Agreement

RDC
Research Diagnostic Criteria

RR
Rational Recovery

RTI
Research Triangle Institute

SAMHSA
Substance Abuse and Mental Health Services Administration

SAS
Social Adjustment Scale

SCID
Structured Clinical Interview (DSM-IV)

SIDS
Sudden Infant Death Syndrome

SMA
State Methadone Authority

SOS
Secular Organization for Sobriety

SSA
Single State Agency

STDS
sexually transmitted diseases
TB
tuberculosis

TOPS
Treatment Outcome Prospective Study

VA
Department of Veterans Affairs

VDRL
Venereal Disease Reference Laboratory

VESID
Vocational Educational Services for Individuals with Disabilities
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Appendix D - TB/PPD Testing - Sample Forms

TB/PPD Testing

Patient Name_________________________ SS#__________ Unit: ... Sat ... AC ... SUPT

Section A (History)

- Confirmed Negative TB test in past 30 days: ... Yes ... No
  Date (Mo/Day/Yr) ________ Location ________________

*If YES, DO NOT TEST; SKIP sections B and C; go to section D*

- Previous Positive test for tuberculosis: ... Yes ... No
  Date (Mo/Day/Yr) ________ Location ________________

*If YES (positive TB history), DO NOT TEST; go to section C - If NO, complete section B*

Section B (If Previously Negative)

- Has patient ever had mumps? ... Yes ... No ... Unknown
- Is patient allergic to eggs?... Yes ... No

Instructions: If patient is allergic to eggs, DO NOT USE MUMPS. Specify amount of erythema and induration in mm. First test for TB is positive if there is palpable induration of at least 5 mm. Test for mumps is positive if there is erythema of at least 5 mm. Test for Candida is positive if the erythema and induration are at least 5 mm. Repeat test for TB, if indicated, within 14 days. Second test for TB is positive if there is
palpable induration at least 6 mm larger than was present from the first TB test.

- Results: Positive ... Negative ... Anergic ... Equivocal ... No Show

If POSITIVE, complete section C

<table>
<thead>
<tr>
<th>Test</th>
<th>Placement</th>
<th>24 hr</th>
<th>48 hr</th>
<th>72 hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB-Initial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candida</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocci</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date/Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TB-Repeat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date/Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section C (If Previously or Currently Positive)

- Type:
  - Active ...
  - Latent ...
  - Unknown

- Referral: ...
  - IDC ...
Pulmonary Clinic...
Hospital ...
Private Physician ...
None/Dropped Out ...
Other__________________________

• Treatment Status: ...
  Initiated/Continuing ...
  Discontinued ...
  Completed ...
  Not Initiated/Contraindicated ...
  Unknown

• If Treatment Discontinued or Not Initiated, reason: ...
  Previous Adequate Treatment ...
  Age ...
  Noncompliance ...
  Poor Liver Function ...
  Other Medical Problem ____________

<table>
<thead>
<tr>
<th>Treatment</th>
<th>dose/frequency</th>
<th>start date</th>
<th>recommended end date</th>
<th>actual end date</th>
</tr>
</thead>
<tbody>
<tr>
<td>... Aminosalicylic acid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Ethambutol HCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Isoniazid &amp; Pyridoxine(INH &amp; B6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Rifampin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section D

- HIV Status:...
  - Positive...
  - Negative...
  - Unknown

If POSITIVE, date of **EARLIEST positive test (Mo/Yr)** ____________

If NEGATIVE, date of **MOST RECENT negative test (Mo/Yr)** ____________

### Substance Abuse Inpatient Unit

**TB Testing**

**Supplemental Questions**

Chest X-ray results: NAD / Consistent with TB / Equivocal

Followup (after discharge):

- None indicated
- Repeat Chest X-ray (suggested date) ____________
- Repeat skin testing (suggested date) ____________
- Infectious disease appointment (date) ____________
- Pulmonary appointment (date) ____________

CDC report filed
Unable to follow up: no known address / premature discharge

Important statistics:

Residence: home / homeless / shelter / unknown

Imprisonment: past / current

IV drug abuse: past 6 months / remote history / never

Three highest ranked drugs of use:

1. __________ 2. __________ 3. __________

DSM III R Axis I

_________________
_________________
_________________

Axis II

_________________
_________________

_________________
Signature Date

Substance Abuse Treatment Outpatient Clinic

PPD Testing

Supplemental Questions

1. When was your last chest X-ray? __________ Date

2. When were you last skin-tested for tuberculosis? __________ Date

3. Were you tested with a single poke from a needle __________
(PPD) or with four pokes from a small plastic applicator (tine test)?

4. Did you get tested with controls (anergy panel)?
   Date
   __________
   Y/N

5. Drug use in past 6-12 months (check if yes):

   IV Heroin  Other opioids  Sedative/Hypnotic
   _____    _____    _____

   IV Cocaine  Smoked Crack  Snorted Cocaine
   _____    _____    _____

   IV Other  PCP  _____
   Amphetamine  Amphetamine
   _____    _____

   Alcohol  _____  Cigarettes  Marijuana  _____

   Hallucinogens
   _____

6. Residence in the past 6-12 months (check if yes)

   Home  _____  Homeless  Shelter  _____  Unknown  _____

ORDERS:

1. Place the PPD skin test with two of the anergy panels on the same forearm with the PPD nearest the elbow and the Coccidioidin or Candida nearest the hand. DO NOT use mumps if allergic to eggs.

2. Read and record the results at 24, 48 and 72 hours.

3. DO NOT DO SKIN TESTING if the patient has ever tested positive for tuberculosis.

4. DO NOT DO SKIN TESTING if the patient has ever been treated for tuberculosis.

5. Repeat PPD test within 14 days if patient was anergic.
or had a skin reaction which would be interpreted as negative (less than 5 mm).

____________________
Date

____________________
Physician's Signature

____________________
(Signatures of all RNs/LVn involved in testing)

____________________
Date
## Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

*Treatment Improvement Protocol (TIP) Series 10*

### Appendix E - Multidrug Abuse Patterns

#### Multidrug Abuse Patterns

<table>
<thead>
<tr>
<th>Combination</th>
<th>Desired Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin plus alcohol</td>
<td>Enhance a &quot;high&quot; or create euphoria</td>
</tr>
<tr>
<td>Heroin followed by alcohol</td>
<td>Self-medicate narcotic withdrawal symptoms</td>
</tr>
<tr>
<td>Heroin plus cocaine</td>
<td>&quot;Speedball&quot;: enhance or alter cocaine &quot;high&quot; or euphoria</td>
</tr>
<tr>
<td>Heroin followed by cocaine</td>
<td>Medicate narcotic withdrawal or mitigate cocaine &quot;nerves&quot; (overstimulation)</td>
</tr>
<tr>
<td>Cocaine plus alcohol</td>
<td>Enhance &quot;high&quot;; modulate overstimulation</td>
</tr>
<tr>
<td>Cocaine followed by alcohol</td>
<td>Medicate cocaine anxiety, nervousness; modulate the &quot;crash&quot; (parachute)</td>
</tr>
<tr>
<td>Cocaine followed by heroin</td>
<td>Medicate overstimulation; modulate the crash (parachute)</td>
</tr>
<tr>
<td>Methadone plus alcohol</td>
<td>Create a high; accelerates metabolism</td>
</tr>
<tr>
<td>Methadone plus cocaine</td>
<td>Modulate the anxiety and nervousness that is frequent with cocaine use; parachute effect of crash</td>
</tr>
<tr>
<td>Methadone plus &quot;benzos&quot; (e.g., Valium)</td>
<td>Create a high; &quot;boost&quot; the methadone</td>
</tr>
</tbody>
</table>
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Appendix F - Diagnostic Assessment Instruments

Ordering Information

Addiction Severity Index (ASI)

National Clearinghouse for Alcohol and Drug Abuse Information (NCADI)
P.O. Box 2345
Rockville, MD 20847-2345
(800) 729-6686
301) 468-2600

Beck Depression Inventory (BDI)

The Psychological Corporation
Order Service Center
P.O. Box 839954
San Antonio, TX 78283-3954
(800) 228-0752

Diagnostic Interview Schedule (DIS)

EPRB DESR NIMH HIH
5600 Fishers Lane, Room 10C-09
Rockville, MD 20857
(301) 443-3774

Drug Addiction Severity Test (DAST)

Addiction Research Foundation
33 Russell Street
Toronto, Ontario
CANADA M5S 2S1
Michigan Alcoholism Screening Test (MAST)

Melvin L. Selzer
6967 Paseo Laredo
La Jolla, CA 92037
(619) 299-4043

Structured Clinical Interview (SCID)

American Psychiatric Press, Inc.
1400 K Street, NW
11th Floor
Washington, DC 20005
(1-800-368-5777)
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Appendix G - DSM-IV Criteria for Substance-Related Disorders

Criteria for Substance Dependence

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

Specify if:

- **With Physiological Dependence**: Evidence of tolerance or withdrawal (i.e., either item 1 or 2 is present)
- **Without Physiological Dependence**: No evidence of tolerance or withdrawal (i.e., neither item 1 nor 2 is present)

**Course specifiers** (see text for definitions):

- Early Full Remission
- Early Partial Remission
- Sustained Full Remission
- Sustained Partial Remission
- On Agonist Therapy
- In a Controlled Environment

---


## Course Specifiers

Six course specifiers are available for Substance Dependence. The four Remission specifiers can be applied only after none of the criteria for Substance Dependence or Substance Abuse have been present for at least 1 month. The definition of these four types of Remission is based on the interval of time that has elapsed since the cessation of Dependence (Early versus Sustained Remission) and whether there is continued presence of one or more of the items included in the criteria sets for Dependence or Abuse (Partial versus Full Remission). A diagnosis of Substance Abuse is preempted by the diagnosis of Substance Dependence if the individual's pattern of substance use has ever met the criteria for Dependence for that class of substances.

**Early Remission**: Because the first 12 months following Dependence is a time of particularly high risk for relapse, this period is designated Early Remission. There are two categories:

- **Early Full Remission**: This specifier is used if, for at least 1 month, but for less than 12 months, no criteria for Dependence or Abuse have been met.

- **Early Partial Remission**: This specifier is used if, for at least 1 month, but less than 12 months, one or more criteria for Dependence or Abuse have been met (but the full criteria for Dependence have not been met).
**Sustained Remission:** After 12 months of Early Remission have passed without relapse to Dependence, the person enters into Sustained Remission.

There are two categories:

**Sustained Full Remission:** This specifier is used, if none of the criteria for Dependence or Abuse have been met at any time during a period of 12 months or longer.

**Sustained Partial Remission:** This specifier is used if full criteria for Dependence have not been met for a period of 12 months or longer; however, one or more criteria for Dependence or Abuse have been met.

The following specifiers apply if the individual is on agonist therapy or in a controlled environment:

**On Agonist Therapy:** This specifier is used if the individual is on a prescribed agonist medication, and no criteria for Dependence or Abuse have been met for that class of medication for at least the past month (except tolerance to, or withdrawal from, the agonist). This category also applies to those being treated for dependence using a partial agonist or an agonist/antagonist.

**In a Controlled Environment:** This specifier is used if the individual is in an environment where access to alcohol and controlled substances is restricted, and no criteria for Dependence or Abuse have been met for at least the past month. Examples of these environments are closely supervised and substance-free jails, therapeutic communities, or locked hospital units.

Note: For an individual to qualify for Early Remission after cessation of agonist therapy or release from a controlled environment, there must be a 1-month period in which none of the criteria for Dependence or Abuse are met.

**Criteria for Substance Abuse**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>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)</td>
</tr>
<tr>
<td></td>
<td>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)</td>
</tr>
<tr>
<td></td>
<td>3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)</td>
</tr>
<tr>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>B.</td>
<td>The symptoms have never met the criteria for Substance Dependence for this class of substance</td>
</tr>
</tbody>
</table>
**Criteria for Substance Intoxication**

A. The development of a reversible substance-specific syndrome due to recent ingestion of, or exposure to, a substance. (Note: Different substances may produce similar or identical syndromes.)

B. Clinically significant maladaptive behavioral or psychological changes that are due to the effect of the substance on the central nervous system (e.g., belligerence, mood lability, cognitive impairment, impaired judgment, impaired social or occupational functioning) and develop during or shortly after use of the substance.

C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

**Criteria for Substance Withdrawal**

A. The development of a substance-specific syndrome due to the cessation of (or reduction in) substance use that has been heavy and prolonged.

B. The substance-specific syndrome causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

**Cocaine-Related Disorders**

**Diagnostic Criteria for Cocaine Intoxication**

A. Recent use of cocaine

B. Clinically significant maladaptive behavioral or psychological changes (e.g., euphoria or affective blunting; changes in sociability; hypervigilance; interpersonal sensitivity; anxiety, tension, or anger; stereotyped behaviors; impaired judgment; or impaired social or occupational functioning) that developed during, or shortly after, use of cocaine.

C. Two (or more) of the following, developing during, or shortly after, use:
   1. Tachycardia or bradycardia
   2. Pupillary dilation
   3. Elevated or lowered blood pressure
   4. Perspiration or chills
   5. Nausea or vomiting
   6. Evidence of weight loss
   7. Psychomotor agitation or retardation,
   8. Muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias
   9. Confusion, seizures, dyskinesias, dystonias, or coma

D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if with perceptual disturbances: Hallucinations with intact reality testing or auditory, visual, or
tactile illusions that occur in the absence of a delirium.

### Diagnostic Criteria for Cocaine Withdrawal

A. Cessation of (or reduction in) cocaine use that has been heavy and prolonged
B. Dysphoric mood and two (or more) of the following physiological changes developing within a few hours to several days after Criterion A:
   1. Fatigue
   2. Vivid, unpleasant dreams
   3. Insomnia or hypersomnia
   4. Increased appetite
   5. Psychomotor retardation or agitation
C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

### Opioid-Related Disorders

#### Diagnostic Criteria for Opioid Intoxication

A. Recent use of an opioid.
B. Clinically significant maladaptive behavioral or psychological changes (e.g., initial euphoria followed by apathy, dysphoria, psychomotor agitation or retardation, impaired judgment, or impaired social or occupational functioning) that developed during, or shortly after, opioid use.
C. Pupillary constriction (or pupillary dilation due to anoxia from severe overdose) and one (or more) of the following signs, developing during, or shortly after, opioid use:
   1. Drowsiness or coma
   2. Slurred speech
   3. Impairment in attention or memory
D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder

*Specify if with perceptual disturbances: hallucinations with intact reality testing or auditory, visual, or tactile illusions that occur in the absence of a delirium.*

#### Diagnostic Criteria for Opioid Withdrawal

A. Either of the following:
   1. Cessation of (or reduction in) opioid use that has been heavy and prolonged (several weeks or longer)
   2. Administration of an opioid antagonist after a period of opioid use
B. Three (or more) of the following, developing within minutes to several days after Criterion A:
   1. Dysphoric mood
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>2.</td>
<td>Nausea or vomiting</td>
</tr>
<tr>
<td>3.</td>
<td>Muscle aches</td>
</tr>
<tr>
<td>4.</td>
<td>Lacrimation or rhinorrhea</td>
</tr>
<tr>
<td>5.</td>
<td>Pupillary dilation, piloerection, or sweating</td>
</tr>
<tr>
<td>6.</td>
<td>Diarrhea</td>
</tr>
<tr>
<td>7.</td>
<td>Yawning</td>
</tr>
<tr>
<td>8.</td>
<td>Fever</td>
</tr>
<tr>
<td>9.</td>
<td>Insomnia</td>
</tr>
</tbody>
</table>

C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.
Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Appendix H - Psychiatric Disorders

Major Depression

Recognition

The cardinal feature of major depression is a period of at least 1 month of sad, blue, depressed mood which is pervasive, occurring most of the day, every day, and/or loss of interest or pleasure in all or almost all activities. At least three or four of the following associated features should also be present for a diagnosis of major depression:

- Insomnia or increased sleep
- Loss of appetite, weight loss, or increased appetite and weight gain
- Low energy, persistent fatigue
- Low self-esteem, guilt, feelings of worthlessness
- Agitation or a slowed-down demeanor, noticeable to people who know the patient well
- Difficulty concentrating
- Hopeless thoughts or thoughts of suicide

Course of Illness

When left untreated, major depression may eventually resolve spontaneously. However, it is also associated with significant role impairment, such as inability to function at home or work, and also substantially increases the risk for suicide.

Treatment

Antidepressant medications of the tricyclic type (e.g., desipramine, nortriptyline or imipramine) or the serotonin reuptake inhibitor type (fluoxetine [Prozac], sertraline[Zoloft]) are probably the treatments of choice. They should be used by experienced clinicians and carefully monitored as there is an increased risk of adverse drug interactions in outpatients who are actively abusing
stimulants. Methadone impairs the metabolism of tricyclics and results in increased tricyclic blood levels which may be dangerous; blood level monitoring is recommended. Fluoxetine, but not sertraline, impairs the metabolism of a variety of drugs metabolized by cytochrome P450, including some drugs of abuse.

Psychotherapy may also be helpful in the treatment of major depression. Specifically, cognitive therapy (Beck 1979) and interpersonal therapy (Klerman et al. 1984) have been tested and found effective.

**Dysthymia**

**Recognition**

This is a type of depression that includes the same symptoms as major depression and is milder but chronic. The typical patient is sad and depressed at least half the time for at least 2 years. Sometimes patients will report this pattern for many years or for their entire lifetime.

**Course of Illness**

The course is usually chronic, and like major depression may involve functional impairment and risk of suicide.

**Treatment**

Like major depression, dysthymia responds to psychotherapy or antidepressant medication. Although the milder symptoms have historically caused many clinicians to avoid medication treatment, medication is effective and should be tried, especially if psychotherapy fails.

**Bipolar Disorder**

**Recognition**

This is a relatively rare affective disorder in which patients experience both major depressive episodes and manic episodes. Manic episodes are periods of days to weeks or longer of a markedly altered mood which may be euphoric or irritable, accompanied by characteristic symptoms including grandiose feelings of being endowed with special powers or talents, decreased need for sleep, enormous amounts of energy despite lack of sleep, talking constantly, and high physical activity. In more severe episodes, judgment is impaired or patients may develop a paranoid psychosis that is similar to that of acute schizophrenia or severe stimulant abuse (see below).

**Course of Illness**

The course is one of alternating episodes of depression and mania. Patients may function well between episodes but the episodes themselves can be highly disruptive to social and occupational
functioning. The risk of suicide is increased. Increased levels of drug use may occur during either depressive or manic phases.

**Treatment**

Bipolar disorder acutely responds to neuroleptics and can be successfully managed chronically with lithium or, failing that, one of several other mood stabilizing drugs (carbamazepine [Tegretol], valproic acid).

**Antisocial Personality Disorder**

**Recognition**

A history of Conduct Disorder during childhood or adolescence is the first cardinal feature of this disorder. This involves a persistent pattern, prior to age 15, of breaking the rules (e.g., truancy, lying, stealing, fighting), disregard for the rights of others, and/or outright cruelty to others (e.g., torturing animals, deliberately doing physical harm to another person, forced sex).

The second cardinal feature of this disorder is a continued pattern during adulthood of illegal activity, irresponsibility, unstable personal relationships, disregard for the rights of others, or cruelty to others during adulthood.

Care in making this diagnosis is needed since it can easily be confused with the illegal activity frequently engaged in by drug users to support their habits. The latter group's illegal activity should decrease as treatment for drug abuse results in improvement.

**Course of Illness**

Antisocial personality is associated with poor outcome in substance abuse treatment. However, some recent research suggests that patients show improvement during treatment, yet outcomes still appear less successful because of their poorer baseline beginning (Woody et al. 1991; 1985).

**Panic Disorder**

**Recognition**

Panic Disorder is characterized by the frequent occurrence (at least weekly for a month or more) of panic attacks. These are episodes which occur suddenly, reaching a peak of intensity in just a few minutes, and which often seem to occur spontaneously without any frightening circumstance. There is a feeling of fear, terror, or panic accompanied by a constellation of characteristic physical symptoms including shortness of breath, chest tightness or pain, heart pounding, upset stomach, an urge to flee, and a feeling that one is dying or becoming terribly ill. Panic attacks often prompt emergency room visits.

Care is required in making the diagnosis since heavy stimulant abuse can mimic panic attacks.
Course of Illness

Panic Disorder often co-occurs with depressive disorders and may increase the risk of suicide. Alcohol and benzodiazepines may temporarily relieve panic, and consequent abuse of these substances may be observed. Panic disorder often leads to agoraphobia (see below).

Treatment

Panic Disorder may be treated with cognitive/behavioral techniques including deep muscle relaxation, breathing exercises, and self-talk in which the patient is trained to reassure himself or herself that the attack is not serious and will pass.

Panic Disorder also responds to the same antidepressant medications as major depression.

Benzodiazepines may also be effective in treating the symptoms but are to be avoided or used with extreme caution because of their addictive potential in this population.

Agoraphobia

Recognition

Agoraphobia is a persistent fear of one or several characteristic situations, including leaving the house, closed-in spaces (such as stores, theatres, or elevators), heights, bridges, tunnels, buses, or subways.

Course of Illness

Usually associated with panic attacks, it can lead to substantial functional impairment since patients go out of their way to avoid the feared situations and may be unable to shop, commute to work, or even stay at the workplace. As with panic disorder, alcohol and sedatives provide relief and their abuse may be observed.

Treatment

Cognitive-behavioral treatments including progressive desensitization and gradual exposure to the feared situations can be effective.

Antidepressant medications are effective.

As with Panic Disorder, benzodiazepines will relieve the symptoms but should be avoided in most cases due to abuse potential.
**Social Phobia**

**Recognition**

Social phobia is a strong fear of doing things in front of other people or groups, particularly speaking, but sometimes also writing or eating. The feared situation, such as speaking in a group, consistently triggers an intense physical fear reaction including sweating, heart pounding, or stomach upset. This phobia is often lifelong and its onset in childhood or adolescence can be elicited. For example, a patient may report having been fearful to raise his or her hand or be called on in school.

**Course of Illness**

This phobia is often chronic. Social life and work may be impaired. For example, a patient may avoid promotions at work for fear of needing to participate in group activities.

**Treatment**

A major treatment implication of social phobia is that self-help groups and other group-oriented treatments may be frightening and untenable.

Less is known about treatment of social phobia. Cognitive behavioral treatments such as relaxation and progressive desensitization should be tried.

Pharmacotherapies that may be helpful include propranolol (Inderal) and other "beta-blockers," which are commonly used to treat hypertension and seem to block the physical aspects of the fear reaction, and antidepressants.

As with other anxiety disorders, benzodiazepines will relieve the symptoms but should be avoided under most circumstances due to the abuse potential.

**Posttraumatic Stress Disorder (PTSD)**

**Recognition**

The cardinal features of PTSD are a history of severe traumatic events (such as combat or being beaten or raped), followed by recurrent nightmares and vivid daytime flashbacks with an experience of reliving the trauma.

**Course of Illness**

The course is chronic and can lead to substantial functional impairment.
Treatment

Less is known about the treatment of this disorder. Psychotherapy and antidepressant medications may be helpful.

Attention Deficit Hyperactivity Disorder (ADHD)

Recognition

The cardinal feature of ADHD is an early childhood (elementary school) history of difficulty with attention and concentration. This is often reflected as trouble at school, either for not paying attention or for being restless and disruptive in class.

The adult syndrome involves continued restlessness and difficulty concentrating which may impair work and relationships.

Course of Illness

Some children outgrow this disorder, but a third to a half will continue to display symptoms into adulthood. Stimulants such as methylphenidate (Ritalin) are the treatment of choice in childhood, and self-medication with amphetamines or cocaine during adulthood may occur.

Treatment

Stimulant treatment in adulthood is potentially effective but carries the obvious risk of worsened abuse in a narcotic/stimulant abusing population. Tricyclic antidepressants such as desipramine or nortriptyline are also effective and do not carry the risk of addiction.

Occupational therapy or vocational training to help patients cope with their attention deficits may also be helpful.

Schizophrenia

Recognition

The cardinal features of schizophrenia are persistent paranoid or bizarre delusions, auditory hallucinations (hearing voices), or other perceptual symptoms such as a feeling of receiving messages from appliances.

Severe stimulant abuse will cause a paranoid psychosis that is indistinguishable from schizophrenia, except that it should resolve within days to weeks of cessation of stimulants.

Course of Illness

There is almost always substantial impairment of social and work functioning. The course is often one of inexorable deterioration unless treated. Patients often develop so-called "negative
symptoms" which resemble depression and include loss of interest or pleasure and blunted affect. Schizophrenics may be drawn to stimulant abuse because it temporarily ameliorates this negative state.

**Treatment**
Neuroleptics ("major tranquilizers") such as haloperidol (Haldol) and chlorpromazine (Thorazine) are the mainstay of treatment together with a supportive psychosocial intervention. These patients often come across as odd and isolated and are not likely to fit in well in standard drug abuse programs. Programs specially tailored for the drug-abusing schizophrenic are more appropriate but may be rare in many locales.
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Appendix I - Internal Trigger Questionnaire and External Trigger Questionnaire

**Internal Trigger Questionnaire * (Sample Questionnaire)**

During the early and middle stages of cocaine addiction there are often certain feelings or emotions that trigger the brain to think about using cocaine. Read the following list of emotions and indicate which of them can trigger (or used to trigger) cocaine cravings for you:

- _____ Afraid
- _____ Exhausted
- _____ Jealous
- _____ Angry
- _____ Frustrated
- _____ Lonely
- _____ Confident
- _____ Guilty
- _____ Neglected
- _____ Criticized
- _____ Happy
- _____ Nervous
- _____ Depressed
- _____ Inadequate
- _____ Passionate
- _____ Embarrassed
- _____ Irritated
- _____ Pressured
- _____ Excited
- _____ Relaxed
- _____ Sad
- _____ Sad
A. I thought about using cocaine when I felt:

___

B. Circle the above emotional states or feelings that have triggered your cocaine use recently.

C. Has your cocaine use in recent weeks/months been

_______ 1. Primarily tied to emotional conditions

_______ 2. Routine and automatic without much emotional triggering

D. Are there any times in the recent past in which you were attempting to stay drug free and a specific change in your mood clearly resulted in cocaine use? (For example, you got in a fight with someone and went to use in response to getting angry.)

Yes__________ No__________

If yes, describe:

___

___

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**External Trigger Questionnaire** *(Sample Questionnaire)*

1. Place a check mark next to activities or situations in which you frequently used cocaine. Place a zero (0) next to activities or situations in which you never have used drugs.

____ Home alone   _____ Before a date   _____ After payday

____ Home with   _____ During a date   _____ Before going out
<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>To dinner</td>
<td></td>
</tr>
<tr>
<td>Friend’s home</td>
<td>Before sexual activities</td>
<td>Before breakfast</td>
</tr>
<tr>
<td>Parties</td>
<td>During sexual activities</td>
<td>At lunch break</td>
</tr>
<tr>
<td>Sporting event</td>
<td>After sexual activities</td>
<td>While at dinner</td>
</tr>
<tr>
<td>Movies</td>
<td>Before work</td>
<td>After work</td>
</tr>
<tr>
<td>Bars/Clubs</td>
<td>When carrying money</td>
<td>After passing a particular freeway exit</td>
</tr>
<tr>
<td>Beach</td>
<td>After going past dealer’s residence</td>
<td>School</td>
</tr>
<tr>
<td>Concerts</td>
<td>With particular people</td>
<td>Driving</td>
</tr>
</tbody>
</table>

2. List any other settings or activities where you frequently use drugs.

3. List activities or situations in which you would not use drugs.

4. List people you could be with and not use drugs.

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Appendix J - Self-Help Groups

These telephone numbers are provided for the convenience of readers who want information on the following self-help groups:

**Alcoholics Anonymous (AA)**

(212) 870-3400 (New York, NY)

**Cocaine Anonymous (CA)**

(310) 839-1141 (Los Angeles, CA)

**Methadone Anonymous (MA)**

(410) 837-4292 (Baltimore, MD)

**Narcotics Anonymous (NA)**

(818) 780-3951 (Pasadena, CA)

**Rational Recovery (RR)**

(916) 621-4374 (Sacramento, CA)

**Women for Sobriety**

(215) 536-8026 (Philadelphia, PA)
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**Appendix K - Federal Resource Panel**

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- American Society of Addiction Medicine
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- Executive Office of the President
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Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients

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Assessment and Treatment Planning for Cocaine-Abusing Methadone-Maintained Patients
*Treatment Improvement Protocol (TIP)*
Series 10

[Tables and Figures]

Figure 1: Sample Substance Use History Form

<table>
<thead>
<tr>
<th>Drug</th>
<th>Current use (x)</th>
<th>Current rank</th>
<th>Past use only (_ )</th>
<th>Year of 1st use</th>
<th>Date of last use</th>
<th>Typical pattern of use, including amount of daily use</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other opioids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methamphetamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Commonly encountered psychiatric disorders among cocaine and heroin abusers
<table>
<thead>
<tr>
<th>Disorder Category</th>
<th>Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis I</td>
<td>Affective disorders</td>
</tr>
<tr>
<td></td>
<td>Major depression</td>
</tr>
<tr>
<td></td>
<td>Dysthymic disorder</td>
</tr>
<tr>
<td></td>
<td>Bipolar disorder</td>
</tr>
<tr>
<td></td>
<td>Anxiety disorders</td>
</tr>
<tr>
<td></td>
<td>Panic disorder</td>
</tr>
<tr>
<td></td>
<td>Agoraphobia</td>
</tr>
<tr>
<td></td>
<td>Social phobia</td>
</tr>
<tr>
<td></td>
<td>Posttraumatic stress disorder</td>
</tr>
<tr>
<td>Axis I</td>
<td>Attention deficit hyperactivity disorder</td>
</tr>
<tr>
<td>Axis I</td>
<td>Schizophrenia</td>
</tr>
<tr>
<td>Axis II</td>
<td>Antisocial personality disorder</td>
</tr>
<tr>
<td></td>
<td>Narcissistic personality disorder</td>
</tr>
<tr>
<td></td>
<td>Borderline personality disorder</td>
</tr>
</tbody>
</table>

Table 1. American Society of Addiction Medicine adult patient placement criteria for the treatment of psychoactive substance use disorders

<table>
<thead>
<tr>
<th>Levels of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria dimensions</td>
</tr>
<tr>
<td>1 Acute intoxication</td>
</tr>
<tr>
<td>Dimension</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>and/or withdrawal potential</td>
</tr>
<tr>
<td>2 Biomedical conditions and complications</td>
</tr>
<tr>
<td>3 Emotional and behavioral conditions and complications</td>
</tr>
<tr>
<td>4 Treatment acceptance and resistance</td>
</tr>
<tr>
<td>5 Relapse potential</td>
</tr>
<tr>
<td>6 Recovery environment</td>
</tr>
</tbody>
</table>


**Table 2. CSAT model for comprehensive alcohol and other drug (AOD) abuse treatment**

<table>
<thead>
<tr>
<th><strong>Table 2. CSAT model for comprehensive alcohol and other drug (AOD) abuse treatment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A model treatment program includes the following:</td>
</tr>
<tr>
<td><strong>Assessment</strong> including a medical examination, drug use history, psychosocial evaluation, and where warranted, psychiatric evaluation, as well as a review of socioeconomic factors and eligibility for public health, welfare, employment, and educational assistance programs</td>
</tr>
<tr>
<td><strong>Same-day intake</strong> to retain the patient's involvement and interest in treatment</td>
</tr>
<tr>
<td><strong>Documentation of findings and treatment</strong> to enhance clinical care</td>
</tr>
</tbody>
</table>
supervision

**Preventive and primary medical care** provided on site

**Testing for infectious diseases** at intake and at intervals throughout treatment, for infectious diseases, such as hepatitis, retrovirus, tuberculosis, HIV/AIDS, syphilis, gonorrhea, and other sexually transmitted diseases

**Weekly random drug testing** to ensure abstinence and compliance with treatment

**Pharmacotherapeutic interventions** by qualified medical practitioners, as appropriate for those patients having mental health disorders, those addicted to opiates, and those who are HIV seropositive

**Group counseling interventions** to address the unique emotional, physical, and social problems of HIV/AIDS patients

**Basic substance abuse counseling** including psychological counseling, psychiatric counseling, and family or collateral counseling provided by persons certified by State authorities to provide such services. Staff training and education are integral to a successful treatment program

**Practical life skills counseling** including vocational and educational counseling and training, frequently available through linkages with specialized programs

**General health education** including nutrition, sex and family planning, and HIV/AIDS counseling, with an emphasis on contraception counseling for adolescents and women

**Peer/support groups** particularly for those who are HIV positive or who have been victims of rape or sexual abuse

**Liaison services** with immigration, legal aid, and criminal justice system authorities

**Social and athletic activities** to retrain patients' perceptions of social
<table>
<thead>
<tr>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative housing</strong> for homeless patients or for those whose living</td>
</tr>
<tr>
<td>situations are conducive to maintaining the addicted lifestyle</td>
</tr>
<tr>
<td><strong>Relapse prevention</strong> which combines aftercare and support programs,</td>
</tr>
<tr>
<td>such as Alcoholics Anonymous and Narcotics Anonymous, within an</td>
</tr>
<tr>
<td>individualized plan to identify, stabilize, and control the stressors</td>
</tr>
<tr>
<td>that trigger and promote relapse to substance abuse</td>
</tr>
<tr>
<td><strong>Outcome evaluation</strong> to enable refinement and improvement of</td>
</tr>
<tr>
<td>service delivery</td>
</tr>
</tbody>
</table>