Chapter 3—Mental Health Treatment

Individuals with substance abuse disorders, whether or not they are HIV infected, are subject to higher rates of mental disorders than the rest of the population. In some studies of substance abusers, the lifetime prevalence of such disorders is as high as 51 percent (Kessler et al., 1996). However, the percentage of HIV-infected substance abusers with psychiatric disorders has not been ascertained. One study found that 79 percent of HIV-infected injection drug users in treatment required psychiatric consultation and 59 percent had psychiatric disorders other than substance abuse. Forty-five percent of these individuals had organic mental disorders, such as cognitive impairment, anxiety disorders, and mood disorders (Batki et al., 1996). Another study of inner-city adult HIV/AIDS clinics concluded that rates of psychiatric distress in patients of these clinics were much higher than in the general population or in other outpatient medical clinics (Lyketsos et al., 1996). There is some evidence that certain psychiatric disorders such as depression and antisocial personality disorder may be more common among HIV-infected persons with substance abuse disorders than among HIV-infected gay men (Ferrando and Batki, 1998).

Evidence is mounting that psychiatric disorders are common in persons with HIV/AIDS. Preliminary data from the Federal HIV/AIDS Mental Health Services Demonstration Program show high levels of co-occurring substance abuse and psychiatric disorders (the program is administered by the Center for Mental Health Services [CMHS] and funded jointly by CMHS, the Health Resources and Services Administration, and the National Institute of Mental Health). More than 5,000 persons with HIV/AIDS received services in 11 projects across the country between 1994 and 1998. The demographic characteristics of those served mirror the emerging profile of the pandemic: large numbers of disadvantaged minorities, persons with substance abuse disorders, women, and heterosexuals. As the health care delivery system plans for the 21st century, it confronts the complex challenge of designing and implementing cost-effective programs for persons with HIV/AIDS that provide medical, mental health, and substance abuse treatment.

Counselors working with HIV-infected substance abusers should be aware of the variety of both HIV- and substance-induced psychiatric symptoms. It is also important to recognize that psychiatric symptoms may be caused by substance abuse, HIV/AIDS, or the medications used to treat HIV/AIDS, as well as by pre-existing psychiatric disorders.

Linkages With Mental Health Services

Programs that integrate substance abuse and mental health treatment provide both mental health and substance abuse services in the same setting, with the same team of clinicians, and with common treatment plans. However, integrated programs are not always possible or available. Therefore, substance abuse treatment programs that do not have the resources to adequately assess and treat mental illness should be closely linked to mental health services to which clients can be referred. Also, many mental health services are not equipped to treat substance abuse disorders but can refer clients to substance abuse treatment programs. Open lines of communication will enable personnel in both locations to be informed about clients' treatment plans and progress (see Chapter 9 for a discussion of confidentiality issues). Treatment staff should maintain contact with the client and continue treatment during and after the psychiatric referral. Providing concrete assistance, such as transportation to the psychiatric referral site, may increase the likelihood of clients' success in following through on referrals to psychiatric services.

Because it may be difficult for any one clinician to address the complex mental health and counseling needs of HIV-infected substance abusers, the care of these clients is likely to involve multiple providers. A coordinated, holistic approach should be taken to address the multiple problems of this population. (Chapter 6 includes a discussion of how case management can provide this approach.)

Common Mental Disorders in HIV-Infected Clients

Neuropsychiatric effects of HIV infection are relatively common and can significantly influence treatment planning for substance abuse disorders (American Society of Addiction Medicine, 1998). In general, mental disorders of concern in HIV-infected substance abusers may be divided into three broad categories:
Substance-induced mental disorders

HIV-related mental disorders

Medication-related mental disorders

Mental disorders may fall into one or more of these categories. Following is a discussion of common mental disorders among individuals with HIV infection, particularly those with concurrent substance abuse disorders (Ferrando and Batki, 1998). (Terms used are those found in the Diagnostic and Statistical Manual of Mental Disorders, 4th ed. [DSM-IV].)

Adjustment Disorders

Often characterized by anxious or depressed mood, adjustment disorders tend to be time-limited (i.e., 3 to 4 weeks) responses to acute stresses, such as receiving news of HIV infection or experiencing worsened disease severity, a partner's diagnosis or death, job loss, or other life event. Stages of adjustment to the stress of life-threatening HIV infection have been described as similar to the stages of adjustment to other illnesses. These stages generally begin with a crisis and then progress to acceptance and adaptation.

Sleep Disorders

Sleep disorders can result from substance abuse, psychiatric disorders, or physical illness. Sleep disorder in the form of insomnia is a common problem associated with some types of substance abuse such as intoxication from central nervous system stimulants (e.g., cocaine or methamphetamine) or withdrawal from central nervous system depressants such as alcohol, benzodiazepines, or from opioids such as heroin. Occasionally, maintenance on methadone can be associated with insomnia.

Psychiatric illness is a common cause of sleep disturbance. Depression is most often associated with insomnia, although less commonly it can lead to excessive sleep. Anxiety disorders also are associated with insomnia, and posttraumatic stress disorder commonly leads to sleep disturbance in the form of nightmares and other symptoms.

Medical illness such as pulmonary disease or the side effects of medications such as bronchodilators can lead to insomnia. Finally, HIV disease itself appears to be associated with an increased incidence of sleep disorders (Wiegand et al., 1991).

Depressive Disorders

Depression is common among patients with substance abuse disorders, even without the impact of HIV/AIDS. Depression is a common response to learning that one is HIV infected or is becoming more ill, and also may be related to substance abuse or to withdrawal. For example, clients may become depressed for prolonged periods of time after withdrawal from use of alcohol, opiates, stimulants, and other substances (Kanof et al., 1993).

Mania

Mania occurs frequently in clients who are HIV positive. In one study of an HIV/AIDS medical clinic, the incidence of mania was as high as 8 percent (Lyketsos et al., 1993). Mania also can be a complication of substance abuse, particularly the use of cocaine and other stimulants. It can be difficult to determine whether mania is induced by substance abuse or HIV infection (Lyketsos et al., 1993; Mirin et al., 1988).

Dementia

Dementia can be defined as the loss of cognitive and intellectual functions without impairment of consciousness and characterized by disorientation, impaired memory, and disordered judgment. Dementia may occur because of chronic alcoholism, head trauma, and numerous other causes, in addition to HIV disease.

Differentiating these dementias can be difficult. All forms of dementia can be present with cognitive, behavioral, and motor abnormalities. However, effective HIV treatment, particularly highly active antiretroviral therapy (HAART), substantially decreases the occurrence of dementia. AIDS dementia complex (ADC) is a severe form of dementia and is one of the most challenging and anxiety-provoking manifestations of HIV disease for the client and his significant others, as well as for the treatment provider.

The diagnosis of dementia in the HIV-infected substance abuser is based on the presence of significant and disabling impairment of functioning. Usually, impairment occurs in three areas:

- Cognitive functioning (e.g., memory disturbance)
- Behavioral functioning (e.g., altered behavior such as agitation or psychosis)
- Motor functioning (e.g., gait disturbance, incontinence)

A neuropsychological examination is a necessary part of the assessment of dementia. However, a brief cognitive capacity examination such as the Mini Mental State Examination (MMSE) should not be relied upon to diagnose dementia (see Appendix H for a copy of the MMSE), although poor performance on such a screening instrument may indicate that dementia is present and that further testing is advisable.

HIV-related neurocognitive loss usually progresses gradually. Figure 3-1 indicates the degrees of impairment that may be seen at different stages in the course of dementia.

Early signs and symptoms of neurocognitive impairment include
- Short-term memory loss (e.g., forgetting appointments, misplacing items, forgetting to take important medications)
- Loss of visual, spatial, and fine motor coordination (e.g., impaired handwriting, difficulty assembling objects or equipment)
- Cognitive slowing (e.g., taking longer to speak or to understand, appearing "slow" in interviews)
- Mood changes (e.g., mild apathy, depression, hyperactivity)

In later stages of dementia, major impairments become obvious, such as
- Mutism or unresponsiveness to speech
- Agitation, hallucinations, paranoia, or other delusions
- Severe neurological problems (incontinence, inability to walk)

The risk of dementia and other cognitive deficits is highest in HIV-infected clients who are severely immunocompromised. The CD4+ T cell count is a useful index of an individual's risk for AIDS dementia. Generally, dementia is most likely to occur in clients with CD4+ T cell counts below 200 (Boccellari et al., 1993a, b). Neuropsychological testing can establish what stage of impairment a patient has reached, and this information is helpful in treatment planning, treatment expectations, and placement decisions. HIV-related dementia has been reported to respond to treatment with zidovudine (AZT) (Retrovir) and also to treatment with HAART (see Chapter 2).

Delirium

Delirium is an altered state of consciousness manifesting in confusion, disorientation, disordered cognition and memory, agitation, faulty perception, and autonomic nervous system activity. Delirium is an emergent medical problem with a high mortality rate and requires immediate investigation of its cause and immediate initiation of treatment. Sudden development of mental confusion associated with acute encephalopathy or delirium can stem from many sources, including infection, substance intoxication or withdrawal, toxicity from medication, or metabolic disturbances. Delirium is more common than dementia in HIV-infected substance abusers.

Psychosis

Psychotic symptoms may be seen in advanced HIV/AIDS dementia or in delirium and can be difficult to differentiate from substance-induced hallucinations and delusions (e.g., paranoid psychosis resulting from the use of "crack" cocaine).

Personality Disorders

HIV-infected substance abusers have higher rates of maladaptive personality traits. These generally correlate with early onset of the substance abuse. Antisocial traits also are common. Traits and actual personality disorders may require a more directive and supervisory role for the treatment team. For information on the interaction of personality disorders with substance abuse treatment, see TIP 9, *Assessment and Treatment of Clients With Coexisting Mental Illness and Alcohol and Other Drug Abuse* (CSAT, 1994b).

It is possible that HIV-infected individuals are more susceptible to the side effects of psychotropic medications than are non-HIV-infected persons. Medical staff should therefore exercise restraint in prescribing sedatives, antipsychotics, antidepressants, or antianxiety agents for their HIV-infected clients.

Cognitive Impairment and Adherence to Treatment
Both substance abuse and HIV infection may cause cognitive impairment that can reduce adherence to medical care. The care provider should take into account any possible cognitive impairment when beginning client education. For example, it is important to allow clients time to recover from the acute effects of substance intoxication or withdrawal. Clients' ability to understand the content of counseling sessions should be assessed before the counseling occurs (Forstein, 1992).

To determine the substance abuse and mental health treatment needs of persons with HIV/AIDS, the care provider must understand the impact HIV infection has on the brain itself. Even during the early stages of infection, brain function associated with tasks related to memory, attention, concentration, planning, and prioritizing may be affected by the HIV virus. The client who complains of forgetfulness, gets lost on the way to appointments, or has difficulty adhering to schedules or medication dosing should be carefully assessed. These symptoms of possible cognitive impairment could be the result of HIV/AIDS or they could result from other mental health and substance abuse disorders such as depression, substance-induced dementia, or mental retardation. Poorly controlled diabetes or liver disease can also lead to cognitive impairments. It may not be possible to determine the cause of the impairment, but recognizing its presence and its effects on functioning are essential to knowing how best to help the client.

Neuropsychological testing can search for the presence of specific cognitive impairments. Screening and testing instruments assess intellectual functioning, reading and math skills, speed of mental processing or problem solving, and status of long- and short-term memory and recall. The neuropsychologist interprets the test results to help formulate a diagnosis when symptoms are complex and to assess previous and current capabilities relating to memory, attention, problem solving, concentration, and the ability to plan and prioritize.

Communication between medical and counseling staff will help to ensure that cognitively impaired clients are not perceived as deceitful or manipulative. Care providers must keep in mind that cognitively impaired clients' nonadherence to treatment may be a result of the impairment and not caused by denial, resistance, or unwillingness to accept care.

Medication-Related Mental Disorders

Psychiatric symptoms in HIV-infected substance abusers may result from the use of prescription medication. For example, high doses of AZT can produce anxiety, insomnia, or hyperactivity. Similarly, efavirenz (Sustiva) is associated with a variety of central nervous system symptoms, such as very vivid dreams or nightmares (see the section below on drug interactions). The use of steroids in HIV/AIDS treatment also has risen, and these medications may induce psychosis.

In cognitively impaired substance abusers with late-stage HIV disease, memory and other cognitive functions may be worsened by certain combinations of medications, particularly central nervous system depressants such as benzodiazepines (e.g., diazepam [Valium]) and anticholinergic medications such as the tricyclic antidepressants (e.g., amitriptyline [Elavil]). The interaction of some antiretroviral agents, such as the protease inhibitor ritonavir (Norvir), can interfere with the metabolism of benzodiazepines, antipsychotics, and other medications, further aggravating the adverse effects of the antiretroviral agents in the central nervous system.

Assessment and Diagnosis

Assessment and diagnosis of mental illness in HIV-infected substance-abusing clients is a daunting challenge because of these clients' complex problems. It is important to evaluate clients' behavior in context. For example, acute depression is relatively common among clients who have just learned they are HIV positive. This type of time-limited adjustment disorder can lead to worsened substance abuse. In turn, depression can be made more severe or prolonged by substance abuse.

It can be difficult to determine whether substance abuse preceded a client's psychiatric disorder or vice versa. Substance abuse may occasionally be an attempt at self-medication in response to an underlying psychiatric disorder (Khantzian, 1985). Although mental disorders may predate substance abuse, generally the reverse is true. Because an accurate and complete history cannot always be obtained from the client, corroborative sources of information (such as the client's significant others or a previous health care provider) are essential to a complete assessment. Making inquiries of collaborative sources of information will mean disclosing the client's substance abuse or HIV/AIDS status, and the client's written consent is required. See Chapter 9 for more information on consent issues.

Figure 3-2 outlines the major categories of information necessary for a basic mental health assessment.

History Taking
Assessment of the HIV-infected substance abuse treatment client should begin with rapport and trust building and then proceed to a psychosocial history that is as judgment free as possible. The assessment should move from open-ended questions to more specific questions. This questioning should acknowledge and respect gender, ethnic, and cultural differences, as well as sexual orientation. The provider also should keep in mind that history taking may require more than one sitting, depending on the emotional and mental capacity of the client. Many clients with comorbid disorders cannot or will not tolerate long questioning sessions. A complete medical history focusing on both HIV/AIDS and substance abuse should be taken when a client enters treatment. A recent physical examination and laboratory test results should be readily accessible because they may help in assessment of the client's counseling needs. For example, a CD4+ T cell count below 200 informs the mental health or counseling professional that the client is at higher risk for HIV-related dementia (Boccellari et al., 1994). Clients should be reassessed periodically. Fluctuating health status and functional capacity mean that clients' treatment needs will change over time.

Mental State Examination
A comprehensive mental state examination can detect mental disorders. The cognitive portion of the mental state examination can be performed by using standardized questionnaires such as the MMSE (see Appendix H). The most important part of the mental state exam is the section regarding cognitive impairment and danger to self or others (Cockrell and Folstein, 1988; Folstein et al., 1975).

It is helpful to have a psychiatrist or psychologist perform the examination, but most general practitioners are familiar with the basic components of a brief mental state examination. Nursing staff and counselors can also be taught to administer screening exams. A well-designed screening exam will assist clinicians in asking appropriate questions. In addition to the MMSE, other examinations such as the Beck Depression Inventory may be useful in assessing the severity of depressive symptoms (Beck, 1993). Repeated mental state examinations will help determine changes in a client's cognitive or behavioral status.

Treatment Goals
It is essential to set realistic treatment goals that correspond to the client's functional capacities. For example, immediate abstinence from substances may be an excessive expectation of severely psychologically disturbed substance abusers, and treatment programs may have to consider a range of goals for such clients.

Cultural Sensitivity
Therapeutic interventions must be sensitive to the culture and ethnicity of the client population. Whenever possible, therapists and support group leaders should share the culture of their clients and should speak the same language. Cultural compatibility among therapists, case managers, service providers, and clients is important in creating an atmosphere of trust in which sensitive issues, such as family support and group mores, can be addressed.

Cultural factors may have to be taken into consideration in the assessment of psychiatric symptoms. For example, some individuals may have strong spiritual beliefs that can be labeled delusional if their cultural context is not understood.

Generally, the clinician's best guide is the client's significant others or the community context. If the client's beliefs are consistent with her community or culture, it is less likely that she is delusional (Perez-Arce et al., 1993). See Chapter 7 for further discussion of cultural issues.

Pharmacologic Treatment For Psychiatric Disorders
Standard pharmacologic approaches may be used to treat psychiatric disorders in HIV-infected substance abuse clients, with some specific considerations. Without exception, a medical and psychiatric diagnostic evaluation should always be carried out before medication is provided.

Some substance abuse treatment staff may have concerns regarding pharmacologic interventions because they believe that psychiatric medications may place clients at risk for relapse to substance abuse. Although these concerns must be acknowledged, it is necessary to distinguish between medications and drugs of abuse. An approach that withholds psychiatric medications when they are appropriate deprives clients of the opportunity to benefit from a legitimate and necessary treatment option.

Medications for Psychiatric Disorders in HIV-Infected Substance Abusers
When prescribing medications to HIV-infected substance abusers, physicians should use a graduated approach
that increases the level and type of medication slowly, a step at a time. Low doses of safer and less abusable medications should be tried first, and higher doses or less safe agents used only if the initial approach is ineffective. Figure 3-3 offers a guide to appropriate pharmacologic therapy for clients with HIV/AIDS and substance abuse disorders.

For more in-depth information about pharmacology and mental illness, see TIP 9, Assessment and Treatment of Patients With Coexisting Mental Illness and Alcohol and Other Drug Abuse (CSAT, 1994a).

**Abuse of Psychiatric Medications**

In animal and human testing, most of the major classes of psychiatric medications have been shown not to have abuse potential. Studies have shown that neither animals nor humans will self-administer them and that humans will not rate their effects as pleasurable or euphoric. Examples include antipsychotic medications such as chlorpromazine, mood stabilizers such as lithium, and nonpsychostimulant antidepressants such as fluoxetine. Clearly there are exceptions, and occasionally individuals do misuse even these medications, but on the whole the medications have no or very low abuse potential. However, two classes of psychiatric medications do have high abuse potential:

- Central nervous system depressant, antianxiety, and anti-insomnia medications such as diazepam, chlor Diazepoxide, and others, as well as the barbiturates and other, older CNS depressants
- Psychostimulants such as amphetamine and methylphenidate

Figure 3-4 lists both abusable and nonabusable drugs. When working with any substance-abusing client, it is reasonable to expect that some misuse of legally prescribed controlled substances may take place. A hierarchical approach to prescribing is recommended to minimize the potential for abuse. In this approach, the least abusable medications are prescribed first, and the most potentially abusable are used only when other agents have not been effective. Dispensing medication in small amounts helps limit overuse, misuse, or abuse of potentially abusable medications.

HIV-infected persons may be more sensitive to prescription medications as well as to drugs of abuse. When prescribing, clinicians should attempt to use the lowest effective dose to minimize side effects. With clients symptomatic with AIDS, it may be wise to start out with very low doses of the magnitude generally associated with geriatric psychiatry.

**Suicide**

Substance abusers are at increased risk of suicide (Tondo et al., 1999). Comorbidity is common among suicide victims, and substance abuse disorders are most frequently combined with depressive disorders (Berglund and Ojehagen, 1998). HIV-infected individuals may also be at risk of suicide, especially if they are suffering from a mood disorder. In a study of HIV-positive heterosexuals recently diagnosed with HIV, anxiety, depression, and suicidal ideation were assessed. Depression was observed in 40 percent of study participants, anxiety in 36 percent, and serious suicidal intent in 14 percent (Chandra et al., 1998).

Studies have shown that both psychiatric and medical treatment can diminish rates of suicidal ideation among HIV-infected substance abusers. One study administered the Beck Hopelessness Scale (BHS) to 2,379 intravenous drug abusers who were not in treatment, unaware of their HIV status and seeking HIV testing and counseling. Results revealed that seropositivity was closely linked to self-reported depression and suicidal ideation (Steer et al., 1994). When substance abusers are diagnosed with HIV, their first reaction is often terror and panic. As the infected individual envisions a life with AIDS, suicidal ideation becomes more common. If a client is not acutely suicidal but wants to talk about suicide, the counselor should maintain genuine interest, assess the severity, obtain help if needed, and acknowledge the reality of the client's feelings and the severity of the situation. The counselor should not minimize the client's experiences because talking openly about suicide decreases isolation, fear, and tension, and may allow the client to move toward acceptance and commitment to life (Siegel and Meyer, 1999).

Suicidal ideation has been demonstrated to decrease with psychiatric counseling (Perry et al., 1990). When working with an HIV-infected substance abuser who has shown signs of suicidal ideation, the treatment provider should dispense medication in small amounts until the client's level of responsibility can be fully assessed.

Prescribers should be aware that some medications such as TCAs (e.g., amitriptyline) are especially likely to be lethal in overdose.

**Side Effects**
As HIV infection progresses, certain medications may cause adverse side effects in some clients.

- Medications that have anticholinergic effects block saliva flow, causing dry mouth. (For example, TCAs and antipsychotics can produce dry mouth and cause or exacerbate oral candidiasis and other mouth infections; the dry mouth also can result in a greater likelihood of dental caries.)

- Stimulation from antidepressants may trigger hyperactive or manic behavior, especially in the HIV-infected substance abuser who may already have mild central nervous system impairment from HIV.

- HIV-infected clients are more sensitive to movement disorder side effects such as extrapyramidal symptoms that can be caused by antipsychotic medications like haloperidol (Haldol). Therefore, the newer, atypical antipsychotic agents such as risperidone, olanzepine, and quetiapine may be preferable.

- Central nervous system depressants such as sedative-hypnotics should be used with caution because they may cause confusion, memory impairment, and depression.

- The atypical antipsychotic medication clozapine should not be used in HIV-infected patients because of its ability to cause agranulocytosis—a sudden, severe drop in white blood cell count.

Any sudden behavior change or new physical symptom in a client on medication may be medication related. With some medications such as lithium, the TCAs (e.g., amitriptyline), and certain antipsychotics (e.g., haloperidol), blood levels should be tested periodically to avoid drug toxicity.

Adverse Interactions

Clinicians must be aware of the potential for adverse interactions between HIV/AIDS treatment medications and psychiatric medications. HIV-infected clients often are prescribed complex medication regimens. Medications, either alone or in various combinations, may cause confusion and other psychiatric symptoms.

For example, a client may be prescribed fluoxetine for depression plus an anxiolytic medication such as lorazepam and may also be taking AZT and the antibiotic trimethoprim-sulfamethoxazole (Septra), as well as other medications. In any individual client, it is difficult to predict the outcome of interactions among so many medications.

HIV/AIDS medications, such as the protease inhibitors, can potentially interfere with the metabolism both of psychiatric medications and of medications used in the treatment of substance abuse (e.g., methadone). Finally, they can interfere with the metabolism of abused substances—one example is the elevated levels of methylene dioxymethamphetamines (MDMA) that have been found to be associated with ritonavir use (Henry and Hill, 1998).

Because of the potential for adverse interactions among medications, it is essential that medical and psychiatric care providers communicate with each other when treating an HIV-infected substance abuse disorder client (see "Case Management" section in Chapter 6). Pharmacists also can help educate clients and reduce possible adverse effects of drug interactions; they are invaluable sources of information on what medications other health care providers may have prescribed to the client. If a client appears adversely affected by multiple medications, the alcohol and drug counselor must report the observed physical or behavioral change to the client's primary medical provider as soon as possible so the problem can be addressed. However, the counselor cannot contact either the primary care physician or the pharmacist unless the patient signs a consent form (see Chapter 9).

Methadone Maintenance Therapy

Methadone maintenance (or agonist) therapy is the most effective and widely available treatment for opioid abuse (U.S. General Accounting Office, 1998). It is the preferred method of treatment for HIV-infected opioid abusers because it substitutes an oral medication for an injected drug, and it involves regular attendance at a clinic that may offer access to medical care, psychiatric consultation and treatment, neuropsychological evaluation, and social services (Ball et al., 1988; Batki, 1988; Cooper, 1989). Furthermore, longer acting opioid substitutes appear to have a normalizing effect on the immune and endocrine systems, which are disrupted by irregular use of heroin or other abused opioids (Kreek, 1991). Overall, methadone maintenance therapy is associated with a reduced risk of contracting HIV/AIDS and may prevent infection of those patients not yet exposed to the virus (Baker et al., 1995; Iguchi, 1998; Lowinson et al., 1992; Metzger et al., 1993). For more detailed information about methadone maintenance therapy, refer to TIP 20, Matching Treatment Needs to Patient Needs in Opioid Substitution Therapy (CSAT, 1995f), and to TIP 22, LAAM in the Treatment of Opiate Addiction (CSAT, 1995g).

Mental Health and Substance Abuse Disorder Counseling

Counseling is an important part of treatment for all substance abusers, including those with comorbid psychiatric
disorders. The goal of counseling is to help the HIV-infected substance abuser maintain health, achieve recovery from the substance abuse, build coping skills, and attain the best possible level of psychological functioning. Counseling may be done individually, in groups, or with clients' family members and significant others. (See Chapter 7 for more information about counseling HIV-infected clients with substance abuse.)

**Individual Therapy**

Individual therapy can be particularly helpful for a client who may not be ready to share intimate information with a group. Individual counseling allows clients to discuss subjects such as sexual behavior, fear of death, and other issues related to HIV infection, substance abuse disorders, or sexual identity. For some substance abusers, however, individual therapy may not be as potent as group intervention in reducing the sense of isolation, shame, and guilt that many clients feel because of HIV infection. One possible aim of individual therapy is to prepare clients to participate in group therapy.

**Group Therapy**

Most treatment programs working with HIV-infected substance abusers find that supportive group therapy can be highly beneficial. Groups can be structured in a variety of ways, but generally involve a dozen participants with one or two group leaders. Both heterogeneous and homogeneous groups can work well; however, there are occasional exceptions. For example, HIV-infected substance abusers who are strongly self-identified as heterosexual may not feel comfortable in a group with openly gay members, and vice versa. Substance abusers in a group setting may be more restrained about exploring sexuality and sexual behavior.

In general, however, it is not absolutely necessary to segregate group members on the basis of sexual orientation or HIV/AIDS status. Good results can be achieved in a group that includes both HIV-infected and non-HIV-infected substance abusers, as has been shown in the Stimulant Treatment Outpatient Program at San Francisco General Hospital (Perez-Arce et al., 1993).

**Stage-of-diagnosis model**

A current model for structuring groups, based on the clients' stage of diagnosis, has been used successfully by Boston's Fenway Community Health Center. In this model, clients are grouped as follows:

- Those who have just learned about their HIV infection
- Those in the early stages of HIV infection
- Those in the early stages of AIDS

The first two groups focus on healthy lifestyles and improving quality of life. As the sessions progress, clients often exchange information about treatment. The latter type of group focuses more on adapting to illness, grief, and coming to terms with death and dying.

In addition to their therapeutic role, groups may play important roles in educating clients about risk reduction. Because it is important to promote behavior change among all substance abuse disorder clients, those who are not HIV infected should also have the opportunity to attend HIV/AIDS education groups, or should be provided HIV/AIDS education by their individual therapist.

**Family Therapy**

For some clients, "family" needs to be defined as broadly as possible. Some clients have traditional nuclear families. For other clients, family may include a nonmarital partner and additional significant others. Adult clients have the right to define their families and to decide whether to include the people they regard as family in the treatment process. For a socially isolated person, a friend from an AIDS service organization may fill the role of significant other.

Supporting clients in their recovery from substance abuse often is a principal goal of family therapy. Questions about partner or child abuse may also be addressed. In addition, family therapy may provide a useful opportunity to address issues of risk reduction for family members who are not (or not yet) HIV infected. This therapeutic setting is uniquely positioned to offer risk-reduction education to people who may not have been identified either as HIV-infected or as substance abusers.

**Support Groups**

Support groups fulfill a wide range of needs. They are useful in reducing anxiety and depression and can help
with both the substance abuse recovery process and in HIV/AIDS treatment. They also have an educational function, helping clients gain knowledge and skills about the systems they must negotiate. Some support groups have a client advocacy role, helping link programs and lobbying for funding to fill gaps in services. No single organization can provide all the services needed by HIV-infected substance abusers with mental health problems. Substance abuse treatment programs should actively refer clients to appropriate outside support groups where their specialized needs can be met.

**Structuring support groups**

Among the factors that must be considered in structuring support groups are the need to protect client confidentiality and the possible stigmatizing effect of identifying a group for HIV-infected clients.

Among the issues to consider in establishing and maintaining support groups are language, ethnicity, gender, sexual orientation, type of substance abuse, stage of recovery from substance abuse, and stage of HIV infection. Occasionally, homogeneity is desirable and effective. Single-sex groups may be beneficial for both women and men in certain circumstances. Women who have suffered abuse may feel more able to divulge this information in a women-only group. Many HIV-positive women have not told their partners about their HIV/AIDS status, and some may be afraid of losing custody of their children if their status becomes known. Women who have been involved in the sex industry or in sex-for-drugs transactions may have difficulty speaking about these experiences in mixed settings and would benefit from participation in specialized single-sex groups. Single-sex groups are also beneficial for men who have difficulty discussing issues of sexuality, such as sexual abuse and incest, in a mixed-gender group.

Some clients have difficulty achieving full recovery from substance abuse without addressing issues related to sexual orientation. Homosexual and heterosexual clients may not always be comfortable with one another in groups. Ideally, if resources allow, specialized groups defined by both sexual orientation and gender should be offered.

Clients' perceptions and prejudices about the use of different substances are likely to surface in groups and affect the treatment process. For example, alcohol abusers may consider themselves less addicted than cocaine abusers and may be unwilling to admit that they also are abusing substances. In general, it is preferable to hold separate groups for alcohol abusers, heroin abusers, cocaine abusers, and so on.

An individual's stage of recovery may be as important as the type of substance abused. Although most substance abuse treatment programs stress abstinence, clients in early recovery who are also dealing with HIV infection may find total abstinence difficult to achieve. Many programs across the country use a risk-reduction model (see Chapter 4) when working with clients with substance abuse, recognizing that dealing with substance abuse, HIV/AIDS, and possible mental health issues often makes abstinence difficult. Figure 3-5 describes a group developed to assist HIV-infected substance abuse treatment clients.

**Grief and Bereavement**

In addition to facing the prospect of disability and death from AIDS, many HIV-infected substance abusers experience grief and bereavement as a result of the deaths of friends, lovers, spouses, and other family members. There also is a need for grief and bereavement counseling for the client's family. For substance abuse treatment programs, there are at least three goals in addressing grief and bereavement:

- Providing support and counseling for clients who are dying as well as for clients who are experiencing the deaths of significant others
- Supporting staff members who are experiencing grief and stress as a result of working with dying clients
- Establishing flexible program policies that accommodate the limitations of symptomatic HIV-infected clients
### Tables

**Figure 3-1: Abbreviated San Francisco General Hospital Neuropsychiatric AIDS Rating Scale (NARS)**

<table>
<thead>
<tr>
<th>NARS Staging</th>
<th>Orientation</th>
<th>Memory</th>
<th>Motor</th>
<th>Behavioral</th>
<th>Problem Solving</th>
<th>Activities of Daily Living (ADLs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (normal)</td>
<td>Fully oriented</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
<td>Can solve everyday problems</td>
<td>Fully capable of self-care</td>
</tr>
<tr>
<td>0.5 (minor)</td>
<td>Full oriented</td>
<td>Complains of memory problems</td>
<td>Fully ambulatory; slightly slowed movements</td>
<td>Normal</td>
<td>Has slight mental slowing</td>
<td>Slight impairment in business dealings</td>
</tr>
<tr>
<td>1 (mild)</td>
<td>Fully oriented but may have brief periods of &quot;spaciness&quot;</td>
<td>Mild memory problems</td>
<td>Balance, coordination, and handwriting difficulties</td>
<td>More irritable, labile, or apathetic and withdrawn</td>
<td>Difficulty in planning and completing work</td>
<td>Can do simple ADLs; may need prompting</td>
</tr>
<tr>
<td>2 (moderate)</td>
<td>Some disorientation</td>
<td>Memory moderately impaired; new learning impaired</td>
<td>Ambulatory but may require a cane</td>
<td>Some impulsivity or agitated behavior</td>
<td>Severe impairment; poor social judgment; gets lost easily</td>
<td>Needs assistance with ADLs</td>
</tr>
<tr>
<td>3 (severe)</td>
<td>Frequent disorientation</td>
<td>Severe memory loss; only fragments of memory remain</td>
<td>Ambulatory with assistance</td>
<td>May have an organic psychosis</td>
<td>Judgment very poor</td>
<td>Cannot live independently</td>
</tr>
<tr>
<td>4 (end stage)</td>
<td>Confused and disoriented</td>
<td>Virtually no memory</td>
<td>Bedridden</td>
<td>Mute and unresponsive</td>
<td>No problem-solving ability</td>
<td>Nearly vegetative</td>
</tr>
</tbody>
</table>

*Source:* The NARS was developed by A. Boccellari, Ph.D.; J.W. Dilley, M.D.; and I. Barlow, M.D., Department of Psychiatry, San Francisco General Hospital, in collaboration with S. Hernandez and B. Haskell, San Francisco Department of Public Health. This figure was adapted from Price and Perry, 1994; Hughes et al., 1982; and the American Academy of Neurology, 1991.
### Figure 3-4: Abuse Potential of Common Psychiatric Medications

<table>
<thead>
<tr>
<th>Medication Class</th>
<th>High Abuse Potential</th>
<th>Moderate Abuse Potential</th>
<th>Low Abuse Potential</th>
</tr>
</thead>
</table>
| **Sleep medications** | Benzodiazepines:  
- Diazepam  
- Flurazepam  
- Chlordiazepoxide  
- Clonazepam (Klonopin) and others  
- Chloral hydrate  
- Barbiturates  
- Meprobamate |  
- Diphenhydramine  
- Hydroxyzine (Vistaril)  
- TCAs |  
- Trazodone (Desyrel) |
| **Antianxiety** | Benzodiazepines | None |  
- TCAs  
- Buspirone |
| **Antidepressants** | Methylphenidate  
- Dextroamphetamine | None |  
- Fluoxetine and others  
- SSRIs  
- TCAs  
- Buproprion  
- Venlafaxine (Effexor)  
- Nefazodone (Serzone)  
- Mirtazapine |
| **Mood stabilizers** | Clonazepam | None |  
- Lithium carbonate  
- Carbamazepine  
- Sodium valproate (Depakote)  
- Gabapentin (Neurontin)  
- Phenytoin (Dilantin) |
| **Antipsychotics** | None | None | All, for example:  
- Chlorpromazine  
- Thoridazine  
- Haloperidol |
## Figure 3-4
Abuse Potential of Common Psychiatric Medications

<table>
<thead>
<tr>
<th>Anti-Parkinsonian medications</th>
<th>None</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trihexyphenidyl (Artane)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benztropine (Cogentin)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agents for treating substance abuse</th>
<th>Methadone</th>
<th>LAAM</th>
<th>Buprenorphine</th>
<th>Clonidine (Catapres) (This drug should be prescribed with caution since it can be used to self-administer for heroin withdrawal and can cause a rapid drop in blood pressure.)</th>
<th>Naltrexone (ReVia)</th>
<th>Disulfiram (Antabuse)</th>
<th>Bupropion (Zyban)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Boxes

**Figure 3-2: Initial Mental Health Assessment for the HIV-Infected Substance Abuse Treatment Client**

1. **Developmental/Social History**
   - Childhood trauma or illness
   - Education
   - Employment
   - Sexual orientation
   - Relationship history
   - Current support system/social network

2. **Family**
   - Family relationships
   - Family psychiatric history
   - Family substance abuse history

3. **Medical History**
   - HIV history: Date of diagnosis
   - Stage of disease according to CDC classification system (see Chapter 2)
   - Most recent CD4+ T cell count
   - Most recent viral load
   - HIV-related illnesses
   - Other medical illnesses
   - Current medications

4. **Substance Abuse History**
   - Age of onset of substance abuse
   - Substance abuse description:
     - Types of substances
     - Amounts
     - Frequency
     - Route of administration
   - Past or current substance abuse treatment
   - Involvement with self-help (e.g., Alcoholics Anonymous, Narcotics Anonymous)

5. **Psychiatric History**
   - Age of first psychiatric problems
   - Outpatient treatment
   - Inpatient treatment
   - Past and current diagnosis/diagnoses
   - Past and current medications and responses

6. **Current Psychiatric Symptoms**
• Behavior (e.g., agitation)
• Appearance of psychomotor retardation

Cognitive:
• Level of arousal/alertness
• Attention/concentration
• Orientation
• Memory
• Calculation

• Mood (e.g., depression)
• Mania
• Emotional instability
• Anxiety (acute or chronic)
• Symptom pattern (episodic; e.g., panic attacks vs. generalized)
• Psychotic symptoms (e.g., thought disorder)
• Hallucinations
• Delusions

7. Danger to Self or Others
• Ability to care for self
• Suicidality
• Assaultive/homicidal ideation

Figure 3-3: Use of Medications for Psychiatric Disorders in HIV-Infected Substance Abusers

A hierarchical or stepwise strategy should be followed in prescribing medications to HIV-infected substance abusers. Low doses of safer and less abusable medications should be tried first, and higher doses or less safe agents used only if the initial approach is ineffective.

Sleep Disorders

When treating sleep disorders in patients who have HIV/AIDS and substance abuse disorders, choose an approach that minimizes abuse potential.

First Tier
• Simple “sleep hygiene” aids such as a glass of warm milk, a warm bath, meditation, or soothing music are the first recommended ways to deal with insomnia.

Second Tier
• Trazodone (Desyrel) is an antidepressant and sleeping medication with no known abuse potential and low adverse effects. Dosage can start at 25 to 50 mg at bedtime and increase as needed to 100 to 200 mg. Side effects include hypotension (low blood pressure) and very rarely priapism (persistent painful erection). (Priapism occurs in fewer than 1 in 4,000 men taking trazodone.)
• Doses of Hydroxyzine (Vistaril, Atarax) or diphenhydramine (Benadryl) can start at 25 to 50 mg at bedtime and increase to 100 to 150 mg. These medications are generally moderate in abuse potential, but they can cause anticholinergic side effects, such as dry mouth and lowering of the seizure threshold if given in very high doses (over 250 mg per day).
• Mirtazapine (Remeron) is a sedating antidepressant. In the lower end of this dose range (15 mg taken at bedtime), mirtazapine can be effective in helping initiate sleep. Side effects include weight gain. Mirtazapine is probably safer than antihistamines or tricyclics (see below).
• Doses of tricyclic antidepressants (TCAs) such as amitriptyline or doxepin (Sinequan) for sleep can start at 25 to 50 mg at bedtime. TCAs have numerous adverse effects (see “Mood Disorders” section below) and are often lethal in overdose amounts (> 1 g [1,000 mg]). These antidepressants also are often abused by patients in methadone programs (especially amitriptyline).

• Sedating antipsychotic medications such as chlorpromazine (Thorazine) should be used only in the presence of psychotic or manic symptoms, never for insomnia alone.

**Third Tier**

• If the medications listed above fail, a brief course of benzodiazepines should be considered, preferably on a short-term basis (ideally, for less than 2 weeks). They should be moderately short acting, such as temazepam (Restoril) and lorazepam (Ativan), to minimize accumulation of medication and resultant sedation. An alternative agent that shares most of the properties of benzodiazepines, but may be somewhat less abusable, is zolpidem (Ambien).

• Ultra-short-acting agents such as triazolam (Halcion) should be avoided because they may cause withdrawal psychosis and confusion, including memory loss. Be cautious when prescribing long-acting medications such as diazepam (Valium) because of their cumulative effects. Flurazepam (Dalmane) also can have cumulative effects and may cause morning confusion (“hangover”). Caution is also urged with alprazolam (Xanax), which may be more abusable than other benzodiazepines and is associated with considerable rebound anxiety.

**Anxiety**

**Chronic anxiety**

**First Tier**

• Alternatives to pharmacologic intervention include relaxation techniques, meditation, supportive psychotherapy, and counseling, as well as stress management and reduction, and possibly acupuncture. Some of these approaches should be tried before medications are introduced.

**Second Tier**

• Buspirone (Buspar) is a nonabusable medication for chronic anxiety, such as in generalized anxiety disorder. Buspirone is not effective in the treatment of acute anxiety, as it takes at least 2 weeks to act.

• Selective serotonin reuptake inhibitors (SSRIs), such as sertraline (Zoloft), fluoxetine (Prozac), and paroxetine (Paxil), have been shown to be effective in the treatment of panic disorder. Due to their delayed onset of action, SSRIs are not effective for treating acute anxiety.

• TCAs such as imipramine (Tofranil) also are alternatives to potentially dependence-producing agents such as the benzodiazepines and have been demonstrated to be effective for treating both generalized anxiety disorder and panic disorder. They are not effective for acute anxiety.

• Patients must be warned that it is usually necessary to take buspirone, SSRIs, or TCAs for at least 2 weeks before antianxiety effects are felt.

**Third Tier**

See third-tier section of Sleep Disorders above with the same cautions for the use of benzodiazepines: Choose relatively short-acting medications for limited-time use and at limited dosages.

**Acute anxiety**

• Other possible alternatives to the benzodiazepines for treatment of acute anxiety disorders are beta-blockers such as propranolol (Inderal) and the antihypertensive agent clonidine. However, clonidine may pose a danger of overdose and should be dispensed in limited amounts (e.g., 1 week’s supply). Hydroxyzine (Vistaril, Atarax) can also be used in doses of 25 to 50 mg in the daytime as needed as an antianxiety agent, although it is highly sedating. If these fail, then short-term use (less than 2 or 3 weeks) of benzodiazepines may be indicated.

• Antipsychotics should not be used to treat anxiety if there is no evidence of psychosis, mania, or severe dementia. (Whenever possible, psychotherapy, such as cognitive-behavioral therapy, should be tried before moving on to pharmacological treatments for panic disorder.)
Panic attacks

First Tier

- A nonbenzodiazepine medication such as an SSRI (e.g., sertraline) or if an SSRI fails, then a TCA, such as desipramine, should be administered. Dosing should start very low and then advance gradually to levels approaching those used to treat depression. For example, sertraline should be begun at no more than 25 mg per day, but may be increased to 50 or 100 mg per day; fluoxetine should be started at 10 mg per day and may be increased to 20 mg per day; paroxetine should be started at 10 mg per day and increased to 30 if needed. TCAs may have to be started as low as 10 mg per day and gradually increased over several weeks to as much as 150 mg per day if needed. Response takes 2 to 4 weeks. TCAs have numerous moderately troublesome side effects (see "Mood Disorders" section below) and can be lethal in overdose amounts (> 1 g [1,000 mg]).

Second Tier

- If SSRIs or TCAs are ineffective, too risky, or not tolerated because of adverse effects, benzodiazepines should be used. Alprazolam is probably the most frequently used benzodiazepine, but may not be the best choice in patients with substance abuse disorders because of its relatively short duration of action and the need for multiple daily doses. Diazepam or chlordiazepoxide (Librium) may be preferable because they may produce slower onset of side effects. Any benzodiazepine is likely to be effective when used in divided doses totaling approximately 10 to 60 mg per day of diazepam or its equivalents.

- See "Sleep Disorders" section for the risks of benzodiazepine use.

Mood Disorders

Major depressive disorders

First Tier

- The initial approach should include supportive psychotherapy (individual or group) and possibly peer-based supportive counseling. If these approaches fail, however, pharmacologic interventions should be made readily available to the substance abuse disorder patient with HIV/AIDS.

- A careful evaluation must always be done before medications are prescribed. Mood disorder patients are at risk of suicide. Patients also should be warned that it usually is necessary to take medications for at least 2 weeks before antidepressant effects are felt.

Second Tier

- The SSRI antidepressants-fluoxetine, 20 mg per day; sertraline, 100 to 200 mg per day; paroxetine, 20 to 50 mg per day; citalopram (Celexa) 20 to 40 mg per day; and fluvoxamine (Luvox) 100 to 300 mg per day--are all safe and effective. They tend to be nonsedating and generally are safe even in overdoses. They are usually the most tolerable antidepressants. Side effects in 10 to 20 percent of patients may include jitteriness, insomnia, muscle tightness or twitching, mild appetite loss, and mild gastrointestinal illness, as well as some loss of sexual interest and delayed orgasm or ejaculation.

- Trazodone also is safe but its sedating properties limit its usefulness. Patients can rarely take it in large enough doses or in the divided doses necessary for antidepressant effectiveness. However, it can be useful as a sleeping medication.

- Bupropion (Wellbutrin SR) is a non-TCA that is generally safer in overdose than the TCAs. It is more complicated to use than the SSRIs because it must be given in two divided doses totalling 200 to 300 mg per day. Bupropion tends to increase the risk of seizures more than with other antidepressants. Note: bupropion levels are increased by coadministration of the protease inhibitor ritonavir.

- Nefazodone (Serzone) is also a non-TCA, and is generally better tolerated than TCAs. It may be helpful for patients who experience sleep difficulties or adverse sexual effects because of SSRIs. Nefazodone generally is given in at least two doses per day, with a daily dose ranging from 300 to 600 mg/day. Side effects may include light-headedness, visual disturbance, and mild sedation.

- Mirtazapine is yet another non-TCA. It is sedating and is associated with weight gain, but has few adverse effects on sexual functioning and can be given in a single nighttime dose ranging from 15 to 45 mg per day.
Citalopram was recently approved by the FDA for use as an antidepressant. The drug is a new addition to the SSRIs, which are now considered the preferred agents for treatment of this condition. The most common adverse effects of citalopram are nausea, dry mouth, increased sweating, somnolence, and insomnia. A few men have reported difficulty with ejaculation and temporary impotence. No serious cardiovascular side effects have been reported with use of the drug during clinical trials. Some patients may experience a slight weight loss during therapy. The incidence of some adverse events increases as the dose of drug increases. Citalopram can be administered in either 20 or 40 mg doses daily.

Third Tier

- TCAs are not addictive, but they have a number of troublesome side effects, including dry mouth and short-term memory loss. Other side effects--blurry vision, constipation, tremor, and low blood pressure--may contribute to falls, weight gain, and oversedation. Side effects may be offset by low dosages. HIV-infected patients may be more sensitive to side effects. Substance-abusing patients may be more likely to request TCAs that have sedating effects, such as doxepin and amitriptyline.

- All of the TCAs are lethal in overdose and should not be given to unmonitored suicidal patients.

Fourth Tier

- Psychostimulants may be useful for late-stage AIDS patients with severe psychomotor retardation (Fernandez, 1990). Some dramatic, rapid improvement has been observed.

- Methylphenidate (Ritalin) is the safest and easiest to manage of the psychostimulants. Methylphenidate and amphetamines such as dextroamphetamine (Dexedrine) should not be used until other medications have failed, but they should not be withheld solely because of a patient's substance abuse history. Psychostimulants should be administered early in the day and monitored carefully because they cause insomnia. If prescribed to an outpatient, daily dispensing is recommended. If this is impractical, prescriptions should be written for limited quantities and compliance closely monitored.

- Other side effects of psychostimulants include jitteriness, agitation, delusions, hallucinations, and anorexia, as well as abuse and dependence.

- Monoamine oxidase (MAO) inhibitors should be avoided unless all other treatments fail. Use of these medications requires dietary restrictions and carries the potential for lethal hypertensive interactions with other drugs.

Bipolar disorder

- When evaluating the substance abuser with mania, clinicians must consider that the disorder is caused by abuse of substances such as stimulants.

- Lithium is as effective in substance-abusing patients with HIV/AIDS as in the general population in treating mania caused by bipolar disorder. It has no known abuse potential but must be monitored carefully because of side effects, which include dehydration, diarrhea, and altered mental state. Other adverse effects of lithium include tremor, excessive thirst, frequent urination, and weight gain.

- The anticonvulsant medication carbamazepine (Tegretol) is also useful but it can cause severe neutropenia (bone marrow suppression). This may be dangerous when combined with AZT, which has a similar adverse effect.

- Patients maintained on methadone and carbamazepine may induce liver enzymes that can metabolize methadone more rapidly than normal and lead to opiate withdrawal symptoms, which may necessitate higher doses of methadone.

- Valproic acid or divalproex sodium (Depakote) is another alternative to lithium. It avoids the problems of carbamazepine and may be safer but is less proven as a mood stabilizer.

Psychosis/Severe Manic States

- Psychosis is frequently caused by substance abuse such as "crack" cocaine intoxication or alcohol withdrawal. Substance abuse should always be evaluated thoroughly before prescribing.

- Antipsychotic medications are nonaddictive and can be used effectively to treat both acute mania and psychosis. The lowest possible effective dosage should be used, with side effects closely monitored, and the patient should be frequently reevaluated. Abuse of antipsychotic medications,
even by substance abusers, is rare.

- Antipsychotic medications include the older or "typical" agents such as haloperidol (Haldol), chlorpromazine, and many others, as well as the newer, "atypical" agents such as risperidone (Risperdal), olanzapine (Zyprexa), quetiapine (Seroquel), and clozapine (Clozaril). These medications are also occasionally used for the management of agitated confusional states, such as in late-stage dementia.

- Clozapine should probably be avoided in most HIV-infected patients because it can cause profound reduction of bone marrow and blood cell production in 1 to 2 percent of patients.

- Some patients develop extrapyramidal side effects (EPS)—involuntary muscle spasms, jerking, muscle stiffness, or tremor—from antipsychotic medications. Dihydropyridine (Benadryl) and other medications can be used to counter EPS, but these agents can produce anticholinergic side effects such as dry mouth, agitation, and confusional states. An alternative medication to treat EPS may be amantadine (Symmetrel).

- High-potency antipsychotic medications that have the fewest sedating or anticholinergic adverse effects, such as haloperidol, may have the most EPS side effects. EPS may be more severe in HIV-infected patients than in otherwise healthy patients with psychoses.

- Other adverse effects of antipsychotic medications include oversedation, low blood pressure, constipation, dry mouth, and blurry vision.

Figure 3-5: The San Francisco--UCSF AIDS Health Project's AIDS Substance Abuse Program

This group, sponsored by San Francisco General Hospital, is a popular support group for HIV-infected substance abusers who are ill or recently discharged from the hospital. Groups meet in a conference room adjacent to the main hospital cafeteria. Participants who are recovering from substance use discuss their experiences of withdrawal, and current abusers discuss the difficulties of discontinuing substance use. Members of the group also discuss whether abstinence should be the goal of all members of the group.

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