

HIV and Substance Use

A strong link between HIV and substance abuse.

Substance abuse has been associated with HIV/AIDS since the beginning of the pandemic. It is well known that sharing injection equipment is a leading cause of HIV transmission among those who inject drugs. But drug and alcohol use also put people at higher HIV risk by disinhibiting them and making it more likely they will engage in unprotected sex.

The National Institute on Drug Abuse (NIDA) reports that from 2005 to 2009, 64 percent of HIV+ people in the U.S. had used an illicit drug, but not intravenously; only 19 percent had never used an illicit drug. A 2009 study found one in four of those living with HIV reported alcohol or drug use at a level warranting treatment. Besides injection drugs, other substances associated with HIV risk include cocaine ("coke, crack"), amphetamines ("speed"), alcohol, inhaled nitrates ("poppers"), and "party" or "club" drugs, such as crystal methamphetamine (meth) or MDMA ("ecstasy").

NIDA further reports that drug abuse and addiction can worsen the progression of HIV and its consequences, especially in the brain. Animal studies have shown that stimulants can increase HIV viral replication. A human study found HIV caused greater neuronal injury and cognitive impairment in drug users than non-users.

How does substance abuse complicate HIV treatment?

Concurrent (or dual) diagnoses of HIV, substance use, and mental health disorders may affect one another, complicating the course of HIV infection. Problematic drug and alcohol use can undermine both prevention and treatment adherence. A substance-using patient is less likely to adhere to antiretroviral medications, increasing the risk for viral resistance.

Needle-exchange programs and information about cleaning injection equipment has reduced new HIV infections among injection drug users. But injection drug users, often with limited access to care, don't tend to seek medical care for HIV until the disease has progressed, complicating treatment.

Drugs such as heroin, cocaine, and alcohol can suppress the immune system. Drugs can also interfere with HIV medications, and vice versa. Amphetamines, ketamine ("Special K") and heroin can interact with specific antiretrovirals, while Ritonavir can increase the potency of MDMA to a fatal degree.

HIV+ patients who are injection drug users are more likely to have comorbid psychiatric conditions. Studies have found

that between 70-90% had a psychiatric condition before being diagnosed with HIV. These patients also have high rates of prior suicidal behavior. The multifaceted symptoms of psychiatric conditions can sometimes mask the signs of substance abuse, and vice versa. When there is a comorbid psychiatric disorder, the treating physician should carefully prescribe medications, particularly those that tend to be habit-forming.

Medical complications are also a serious concern when treating an HIV+ patient who has a substance use disorder. A treating clinician must be aware of the risk of severe bacterial infections including tuberculosis, hepatitis C and sexually transmitted diseases.

How is substance abuse treated?

Effective treatment for substance abuse improves the quality of life for HIV+ patients, and reduces the spread of HIV infection. Substance abuse treatment can also make it more likely that patients will adhere to their HIV treatment.

Clincians need to screen all HIV+ patients for ongoing or recurrent drug and alcohol use and abuse. There are a variety of screening tools that can be used to identify these problems. Most important to a good history is for the clinician to use a nonjudgmental attitude in asking questions.

The main goal of substance abuse treatment is to reduce or stop drug use, followed by a sustained reduction of high-risk behaviors. A longer-term goal is to develop the ability to quickly control relapse or relapse behaviors, and to maintain the positive behaviors learned in treatment.

The ideal treatment setting for an HIV+ person with a substance use disorder treats both diseases in an integrated fashion. Even when this is not possible, treating physicians and other health care professionals must communicate with one another to ensure a successful outcome.

Outpatient substance abuse treatment is the most common method, and can be quite effective. If the outpatient method is unable to help an individual stay off drugs, residential treatment should be considered. Twelve-step programs can be helpful in the recovery process, especially meetings where discussion of HIV is welcome or accepted.

The pharmacological treatments that are a standard part of substance abuse rehabilitation (e.g. disulfiram, naltrexone, acamprosate, buprenorphine, and methodone) can be administered to HIV+ patients as long as care is taken to monitor



reactions to the medications. Long-term Methodone Maintenance Therapy (MMT) is recommended for severe addicts. Drug-drug interactions should be carefully monitored for those on methodone. A number of medications used to treat HIV and related conditions may raise or lower the levels of methodone in a patient's bloodstream. Naltrexone may not be the right treatment for patients who require pain management with opiods.

References

Chaffee, Barbara, *Screening and Ongoing Assessment for Substance Abuse in HIV: Guideline for Care* (April 5, 2011): http://www.medscape.com/viewarticle/739855.

National Institute on Drug Abuse (http://www.drugabuse.gov/ related-topics/hivaids)

About this Fact Sheet

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