# HIV AND SUBSTANCE USE

FAST FACTS

- ***Substance Use ("SU") & HIV:*** Injection drug use (IDU) is the 2nd most common HIV risk factor. SU's are a heterogeneous group: young gay men, African-Americans, Hispanics, women, severely mentally ill, psychosocially disenfranchised. The *"tri-diagnosed"* patients (HIV + SU + psychiatric illness) are complex and challenging, requiring an *integrated*, *multi-disciplinary* treatment team approach for optimal results.

- ***Epidemiology:*** IDU/HIV rate is growing (17% in '87; 39% in '98); IDU's are a "bridge of infection" for horizontal sexual transmission to partners, and vertical transmission to neonates. African-Americans & Hispanics are over-represented compared to Caucasians.

- ***Risk Behaviors:*** IDU's often share "dirty works" (injection equipment); engage in unsafe sex (due to disinhibition or drug-induced hypersexuality); or trade sex for drugs/money to buy drugs. *Commonly associated drugs:* heroin & other opioids, cocaine, amphetamines, inhaled nitrates, crystal meth, ecstasy, ETOH. *Consequences*: sexual disinhibition, impaired judgment, impulsivity. *Proximity of SU to sexual activity* is more important than the SU d/o itself. *SU & psychiatric sxs* (impulsivity, hypersexuality, impaired reality, cognitive impairment) frequently co-exist and interactively increase HIV risk. *Most common Axis I disorders associated with SU:* bipolar, major depression, schizophrenia, schizoaffective d/o. *Most common Axis II disorders associated with SU:* cluster B traits, antisocial personality d/o (APD), borderline personality d/o. *Additional risk factors:* "shooting galleries" (used more often by minorities); medical "cofactors" (e.g., STD's other than HIV or immunosuppression secondary to SU). Psychiatric inpatients have high levels of HIV risk behaviors coupled with SU; seroprevalence is ~5%-8%. *Factors associated with seropositivity in SU's:* young age, ethnic minority, impaired reality, hypersexuality, childhood or adult sexual victimization, homelessness. *Most prevalent risk behaviors:* homosexuality (unprotected sex), bisexuality (unprotected sex), IDU.

- ***Unique Issues:*** IDU's are more likely to be diagnosed *later* in HIV disease stage, than non-IDU's. If drug use continues during treatment, immune function may be suppressed further, possibly accelerating rate of disease progression. IDU's are less likely to keep scheduled medical appts; more likely to use ER services – fragmenting efforts to maintain continuity of care. Adherence to medications is frequently poor; psychiatric comorbidities further reduce treatment adherence. Reduced adherence = higher morbidity/mortality rates.

- ***Physical Complications:*** severe bacterial infections, pneumonia, endocarditis, Hep C, TB, STD's, neurosyphilis, KS.

- ***Medical Assessments:*** must include evaluation for physical comorbidities: long/short-term effects of alcohol and drugs; withdrawal; side effects of prescribed meds; history of head trauma; metabolic encephalopathies; neurosyphilis; CVA; seizures; OI's; MCMD; HAD. (Neuropsychological testing and brain imaging should be obtained early on for diagnostic and base-line purposes)

- ***Medical Care:*** On-site medical care (when compared to off-site referral) improves health care of HIV-infected SU's, e.g., having med/psych resources available *within* a methadone maintenance treatment (MMT) clinic. If medical, SU, and psychiatric treatments *must* be split, intensive case management (ICS) is often needed to help coordinate care and adherence to treatment plan. Pain evaluation and treatment also critical in this population (see "**Pain Disorders**").

- ***Psychopathology:*** In methadone maintenance treatment (MMT), IDU's with HIV have high rates (70%-90%) of prior psychiatric disease (major depression [18%-22%], APD, psychosis, anxiety, insomnia, cognitive impairment, disinhibition, suicidality). Pt.'s with APD engage in more needle sharing, with more drug use partners, than other IDU's. *Psychiatric sxs are often attributable to:* concurrent drug abuse, antiretroviral/anti-OI medications, CNS HIV, OI's. HIV testing is best done in the context of treatment. Seropositive notification tends toward higher, sustained levels of distress and continued SU.


CLINICAL REFERENCE SERVICES

**OFFICE OF HIV PSYCHIATRY**

AMERICAN PSYCHIATRIC ASSOCIATION

aids@psych.org
703-907-8668

- ***General Treatment Principles:*** determine need for inpatient (moderate-severe withdrawal) vs. outpatient (MMT, psychiatric, etc) vs. residential treatment. Integrated/multidisciplinary treatment approach is effective. Determine type of psychotherapy & type of pharmacotherapy (remember CYP450 precautions). MMT is important in long-term management of severe opioid IDU's because of high risk of relapse out of MMT.

- ***Overall goals:*** improve quality of life; decrease spread of HIV. *Medication treatments:* are guided by 4 considerations: *efficacy, safety, abuse liability, adherence*. Use a stepwise, hierarchical approach. An acute detox procedure with this population is quite similar to that of a non-HIV+ population, except for attention to opportunistic, or other medical comorbidities.

- ***Risk reduction interventions*** must be: flexible, multi-faceted, innovative. "***Harm Reduction"*** is a model for behavioral change that provides a non-judgmental, realistic strategy designed to: reduce or cease drug use (abstinence is one goal of harm reduction, but not the only goal), sustain reduction of risk behaviors, retain patient in tx, rapidly control relapses, and engage patient in med/psych services. HR employs multiple, simultaneous interventions (e.g., MMT, or LAAM, or buprenorphine, etc, with pt. education, individual/group therapies, self-help groups, psychotropic, etc.). *Interventions* need to be tailored to each patient based on patient's: HIV knowledge, level of risk, degree of current psychopathology.

- ***Pharmacologic Interventions:*** depend on which psychiatric condition coexists. Treatment and meds vary; however, 2 AD's in particular ("fluoxetine" & "desipramine") may be associated with reduced cocaine craving/use. However, see the precautions in prescribing either of these for an HIV+ patient in "Mood Disorders".
  for tx of Depression (see "Mood Disorders")
  for tx of Psychosis ("Psychotic Disorders)
  for tx of Bipolar Disorder ( "Mood Disorders" & "Psychotic Disorders")
  for tx of Delirium ("CNS/PNS Disorders)
  for tx of Anxiety ("Anxiety Disorders")
  for tx of Insomnia ("Sleep Disorders")

***Interactions between Antiretrovirals & Methadone:***

| will ***Lower*** methadone levels: | may ***Raise*** methadone levels | ***No Effect*** on methadone levels:. |
|---|---|---|
| rifampin | ETOH | AZT (but AZT levels may rise) |
| rifabutin (+/-) | delavirdine | 3Tc |
| dilantin | fluconazole | ddI (but ddI levels may drop by 41%) |
| phenobarbital | -------------- | ddC (but ddC levels may drop by 27%) |
| efavirenz | -------------- | d4T |
| nevirapine | ------------- | trimethoprim/sulfamethoxazole |
| ritonavir (may lower) | -------------- | saquinavir |
| lopinavir | -------------- | |

***Interactions between Antiretrovirals & Recreational Drugs:***

| drug: | possible interaction: |
|---|---|
| ecstasy (XTC) | 3-10x increase with ritonavir = fatal |
| speed/amphetamines | 2-3x increase with protease inhibitors |
| heroin | same as methadone (may increase or decrease) |
| ketamine | increased levels with ritonavir |
| cocaine | ? |
| GHB | increased levels with ritonavir |