4th International Symposium on

Barcelona, May 5th and 6th 2011

HIV AND PEOPLE WITH SEVERE MENTAL ILLNESS

Overview

- HIV prevalence among people with severe mental illness is greater than the general population
- Risk behaviors are common among people with severe mental illness
- Prevention strategies can be effective among people with severe mental illness
- Care must be used in treating people taking psychotropic and antiretroviral medications

Objectives

- To describe HIV prevalence, risk behaviors, and prevention interventions for people with severe mental illness
- To understand differential diagnosis between pre-existing, HIV-related, and iatrogenic psychosis
- To appreciate drug-drug interactions in HIV disease

Outline

- Epidemiology of HIV
- Prevalence of risk behaviors
- Detection of HIV infection
- Reduction of sexual risk behaviors
- Differential diagnosis of psychoses in the presence of HIV infection
- Use of antipsychotic medication in the presence of HIV infection
- HIV-related goals for mental health systems

A Definition of Severe Mental Illness

- Disorders with psychotic features: e.g., schizophrenia, bipolar illness
- History often significant for hospitalization and / or maintenance medication
- Functional impairment present
- Impairment not due to the neuropsychiatric manifestations of HIV infection

HIV AND SEVERE MENTAL ILLNESS

EPIDEMIOLOGY

HIV Sero-prevalence Studies of Psychiatric Patients

- 11 peer-reviewed studies, all in the northeast, 9 in New York City
- Largely inpatient based
- Overall N = 2,873
  Range antibody positive = 4% to 23%
  Overall rate = 7.8%
- Detection of seropositive patients by hospital staff = 12% to 68%

HIV Sero-prevalence Studies of Psychiatric Patients
(continued)

- Women are as likely to be infected as men, and more likely than the general population
- Patients who are under 40, or a racial/ethnic minority, or have a dual diagnosis have highest rates of infection

HIV Sero-prevalence by Psychiatric Inpatient Setting

Summary of Studies

- **Dual Dx: 18.4%**
- **Homeless: 8.5%**
- **Acute: 6.9%**
- **Forensic: 5.4%**
- **Long-stay: 4.0%**

HIV Infection Rates by Type of Drug Use

Among People with Comorbid Severe Mental Illness and Substance Use Disorders

Summary of Studies

- **Injectable drugs** **33.8%**
- **Non-Injectable drugs** **15.4%**
- **Alcohol only** **10.9%**

First Hospitalization for Psychotic Episode
(Suffolk County, New York)

- N = 320
- Age 20-39
- Minimum rate of HIV infection: 3.8%
- Most patients never had HIV testing
- AIDS was leading cause of death

Advantages to Detecting HIV Infection

- Assess and monitor immune system
- Consider / prepare for / begin antiretroviral therapy
- Slow progression of immune system damage

Advantages to Detecting HIV Infection
(continued)

- Consider prophylaxis against OIs
- Reduce risk of transmission to uninfected partners / newborns
- System wide: Advocate for resources

HIV AND SEVERE MENTAL ILLNESS

RISK BEHAVIORS

Sexual Risk Behavior Among People with Severe Mental Illness

Summary of Studies

- **>50% have had recent sexual activity**
- **Rates of condom use low**
- **↑ Risk of environmental exposure**
  - **Hospitals / prisons / shelters / endemic urban neighborhoods**

Recent Sexual Encounters Among People with Severe Mental Illness

Summary of Studies

- **Partner has known risk--e.g., HIV+; IDU; MSM**
- **Met partner in bar or on street**
- **Unfamiliar partner**
- **Coerced sex**

Sexual Risk Behavior Among People with Severe Mental Illness

Summary of Studies

Patients have fewer episodes of sex, but:

- ↑ **Number of partners**
- ↑ **Number of risky or anonymous partners**
- ↑ **Frequency of sex trading**
- ↑ **Frequency of same-sex activity: 19%-30% lifetime rates**

Sexually Transmitted Diseases Among People with Severe Mental Illness

- Recorded lifetime rates: 3%-33%
- Co-factors in HIV transmission
- Associated with substance use disorder

Drug Use Risk Behavior Among People with Severe Mental Illness

Summary of Studies

- ↑ **Rates of co-morbid alcohol/drug use: 20% - 75%**
- **Intermittent IDU:**
  - **Recent 1% - 8%**
  - **Lifetime 4% - 26%**
- **Unsafe sexual activity while high on alcohol/drugs**

Drug Use Risk Behavior Among People with Severe Mental Illness

(continued)

- Associated sexual risk behaviors:
  - Sex with IDU partners
  - Sex in exchange for money / drugs
  - Impaired judgment and reduced impulse control while high
- Associated with ↑rates of STDs
- Treatment of an alcohol/substance use disorder is an HIV risk reduction strategy

Patients with Triple Diagnosis

Majority:

Alcohol/substance use and HIV with comorbid depressive, anxiety, personality disorders

Minority:

Recurrent psychotic disorders (schizophrenia, mania, depression with psychosis, psychosis NOS) with comorbid alcohol/substance use and HIV

HIV AND SEVERE MENTAL ILLNESS

PREVENTION AND INTERVENTION

HIV Prevention for People with Severe Mental Illness

Primary Prevention

- Protect HIV-negative patients from acquiring infection
- Reduce the incidence of other bloodborne /sexually transmitted diseases and unwanted or unplanned pregnancy
- Reduce the likelihood of unwanted or coerced sex

HIV Prevention for People with Severe Mental Illness (continued)

Primary and Secondary Prevention

- Reduce the risk of HIV-positive patients transmitting HIV to uninfected people
- Protect unborn and newly born children from maternal transmission
- Access early antiretroviral medication to help prevent irreversible immune deficits
- Improve skills for coping with HIV-related illness and adhering to medical regimens

HIV Prevention for People with Severe Mental Illness (continued)

Primary and Secondary Prevention

- Routinely incorporate sexual and drug use risk histories into psychiatric evaluation
- Detect early by offering screening / counseling to test for STDs and HIV
- Develop skills-based risk-reduction interventions: Knowledge is necessary, but not sufficient

HIV Prevention for People with Severe Mental Illness (continued)

Primary and Secondary Prevention

- Distribute condoms
- Promote access to needle/syringe exchange programs
- Enhance access to medical assessment and antiretroviral treatment
- Integrate medical / psychiatric / substance use services

Outcomes of Cognitive Behavioral Skills Training Intervention for People with Severe Mental Illness

Summary of Studies

- ↑ AIDS knowledge
- ↑ Self efficacy / intention to change
- ↑ Condom use
- ↓ Number of partners
- ↓ Episodes of unprotected sex

Reducing Sexual Risk: Suggested Modifications for People with Severe Mental Illness

- Adjust language used by staff to match verbal skills, cognitive functioning, and cultural values of patients
- Keep goals simple and realistic
- Be more repetitive
- Provide more maintenance sessions
- Distribute condoms on-site free of charge

Barriers to Medical Care for People with Severe Mental Illness

- ↓ Access to medical care
- Capacity / adherence concerns
- Limited research on effective HIV services
- Interactions between psychotropics and antiretrovirals

HIV AND SEVERE MENTAL ILLNESS

DIFFERENTIAL DIAGNOSIS

When Psychosis Occurs in the Course of HIV Infection

- Prior to infection:
  - Elevated rates of HIV infection in SMI patients
  - Risk factors:
    - Alcohol and other drug use
    - Unsafe sex
    - Environmental circumstances (poverty, institutionalization, etc.)
  - May see relapse of psychotic illness when patient first learns of positive HIV antibody test

When Psychosis Occurs in the Course of HIV Infection
(continued)

- With asymptomatic infection:
  - HIV invades the brain at initial infection
  - Neither disorder is rare and association may be due to chance
  - Not known if HIV by itself increases biological vulnerability to psychosis

When Psychosis Occurs in the Course of HIV Infection (continued)

- With symptomatic illness:
  - Differential diagnosis is critical
  - Can be a complication of:
    - medical illness
    - metabolic disturbances
    - neuropsychiatric manifestations of HIV (e.g., HAD)
    - medication side effects
    - substance abuse
  - Can occur at the initial presentation of symptomatic HIV illness

HIV AND SEVERE MENTAL ILLNESS

USE OF ANTIPSYCHOTIC MEDICATION

Use of Antipsychotic Medication in HIV Infection: General Principles

Early infection, not on HIV meds	No data. Safety and efficacy comparable to routine use?
Any stage infection, on HIV meds	Drug-drug interactions
Late infection, +/- HIV meds	↓ Doses for efficacy ↑Side effects

Advanced HIV Infection and Psychosis: Outcomes of Drug Treatment

- Antipsychotic medications are usually effective whether or not cognitive symptoms are present
- Pattern of response is similar to elderly--start low, go slow
  - Lower doses needed for efficacy
  - Increased sensitivity to side effects

Association of HIV Infection and ↑ Extrapyramidal Side Effects (EPS)

- Movement disorders occur in advanced HIV infection without exposure to neuroleptics
- Autopsy report shows neuronal loss in basal ganglia

Use of Antipsychotic Medication in Late Stage HIV Infection: Side Effects

Extrapyramidal side effects

- **Can be severe, including NMS within days and TD within weeks or months**
- **Usually but not always responsive to treatment**
- **Greatest with high potency standard neuroleptics / lowest with atypical antipsychotics**

Use of Antipsychotic Medication in Late Stage HIV Infection: Summary

- Use atypical antipsychotic medication as first-line treatment
- ↓ Doses to achieve efficacy and reduce side effects
- Patients who do not tolerate/respond to one class of antipsychotics may do well with another
- Catatonia responded rapidly to lorazepam (2 case reports)

Antiretrovirals and Antipsychotics: Drug-Drug Interactions

- Similar metabolic pathways in cytochrome P-450 system
- May facilitate or inhibit one another's metabolism (modifying psychotropic dose vs. maintaining antiretroviral levels)
- Package inserts focus on predicted pharmacokinetics, not clinical experience
- May see overlapping toxicities

Antiretroviral Medication and Clozapine

- Protease inhibitors, particularly ritonavir, theoretically elevate levels of clozapine more than threefold
- Bone marrow toxicity of antiretrovirals, particularly zidovudine, may potentiate bone marrow toxicity of clozapine. ZDV marrow suppression can be corrected with G-CSF.

HIV AND SEVERE MENTAL ILLNESS

CONCLUSIONS

HIV and People With Severe Mental Illness: Summary

- Prevalence of HIV is elevated over the general population
- Sexual and drug use risk behaviors are common
- Prevention strategies are demonstrated to be effective for short-term risk reduction

HIV-Related Goals for Systems Treating People with Severe Mental Illness

Programs for patients should include:

- **Staff awareness of HIV issues**
- **Risk assessment as part of evaluation**
- **Availability of voluntary HIV testing on site**
- **Services focused on sexual health and HIV/STD prevention**

HIV-Related Goals for Systems Treating People with Severe Mental Illness (continued)

- Condom distribution
- Access to alcohol / substance use treatment
- Access to sterile needles / syringes
- Access to HIV-related medical care