

---

## Addressing Mental Illness Among People with HIV/AIDS

**Francine Cournos, M.D.**  
Professor of Clinical Psychiatry, Columbia University  
Principal Investigator, New York/ New Jersey AETC  
fc15@columbia.edu



With input from **Stephen Ferrando, MD**  
Professor of Clinical Psychiatry and Public Health,  
Cornell University

**ACTHIV**  
May 16, 2009

---

## Learning Objectives

At the conclusion of this presentation,  
participants should be able to:

- ◆ Perform a differential diagnosis of altered mental status in HIV positive patients
- ◆ Develop an initial treatment plan for the most common psychiatric disorders in those with HIV infection

---

## Mental Illnesses is Found at High Rates among People with HIV Infection because:

1. People at risk for HIV have elevated rates of mental illness even before HIV infection occurs.
2. HIV has a direct impact on the brain which increases the risk for mental illness.
3. Medications to treat HIV and related disorders can heighten the risk for mental illness.
4. All of the above and more are true.

---

## Why Do Substance Use Disorders and Other Mental Illnesses Travel with HIV Infection?



---

## Mental Health Problems Precede HIV Infection Among Subpopulations at Greatest Risk

- ◆ IDU: High rates of addictive and other psychiatric disorders
- ◆ MSM: Elevated rates of alcohol/substance use disorders and depression
- ◆ SW: High rates of childhood sexual abuse; elevated rates of addictive disorders and PTSD; most want to leave their profession
- ◆ All groups exposed to rejection, stigma, trauma

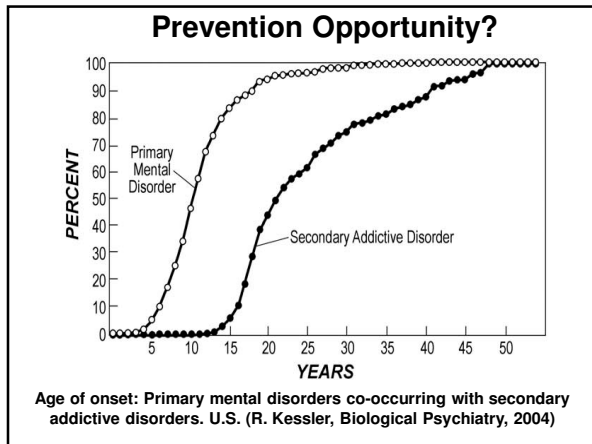
American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

---

## 50% Comorbidity of Substance Use and Mental Illness in U.S.

Possible explanations:

- ◆ One disorder is a marker for the other.
- ◆ Mental illness leads to self-medication with substances.
- ◆ Substance use and withdrawal lead to symptoms of mental illness.



## Mental Health Problems Follow HIV Infection

---

# Neuropsychiatric Problems Associated with HIV/AIDS

### Case

---

**45 year old woman with AIDS (CD4 185, VL undetectable on ARVs), schizophrenia, diabetes mellitus, referred to onsite psychiatrist for worsening psychosis.**

**Guess what was wrong with her?**

- 1. Diabetic ketoacidosis**
- 2. Stopped medication for schizophrenia**
- 3. Drug interactions between multiple medications**
- 4. Schizophrenia symptoms fluctuate**

### Assessing Mental Status Changes in Symptomatic HIV Infection

---

Look for underlying biological cause

**1. HIV-related illnesses:**

- CNS lesions, infections
- Non-CNS medical problems

**2. Medications: HIV, psychiatric, other**

**3. Non-HIV medical problems**

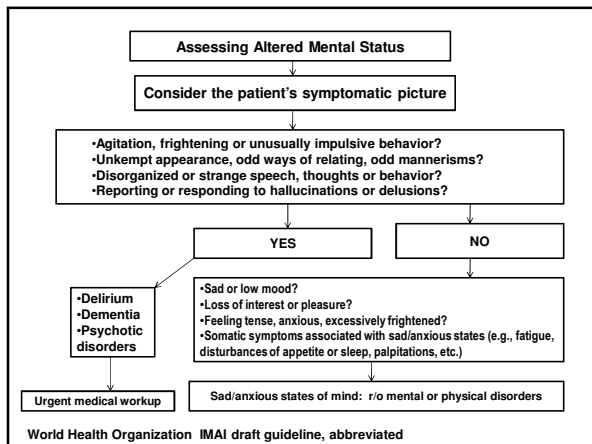
**4. Substances: Alcohol, drugs, herbal, other**

and/or

**Psychiatric Syndromes**

- HIV-associated Neurocognitive Disorders (HAND)

American Psychiatric Association Practice Guidelines and other reference documents  
www.psych.org/aids



## RAND HCSUS Study: 2,864 HIV-positive Medical Patients

---

<b>Any Psychiatric Disorder:</b>	<b>48%</b>
◆ Major depression	36%
◆ Dysthymia	27%
◆ Generalized anxiety disorder	16%
◆ Panic attack	11%
◆ Drug dependence	13%
◆ Problematic alcohol use	19%

Bing et al Arch. Gen. Psych. 2001  
Later studies showed elevated rates of PTSD  
Israelski et al, AIDS Care, 2007

## HIV and People with Severe Mental Illness

- ◆ People with these disorders are increasingly found in HIV/AIDS medical programs
- ◆ The most common diagnoses are schizophrenia, schizoaffective disorder, bipolar disorder, depression with psychotic features
- ◆ A history of psychiatric hospitalization, functional impairment, recurrent episodes is usually present
- ◆ Patients usually require specialty psychiatric care

Level of evidence: Expert opinion

## Neuropsychiatric Problems Among Perinatally Infected HIV+ Adolescents

- ◆ Neurodevelopmental delays correlate with the severity of HIV illness; helped by early initiation of ARVs
- ◆ There is limited research looking at the prevalence of psychopathology – a few studies suggest very high rates, most commonly anxiety disorders
- ◆ Numerous factors may contribute to psychopathology
  - poverty and psychosocial adversity
  - low birth weight and prenatal drug exposure,
  - genetic vulnerabilities
  - HIV itself

Mellins et al, J Child Psychology Psychiatry, 2009

## Treating the Whole Person Involves the Integration of Care for Multiple Diagnoses

### The Multiply Diagnosed Patient:

- ◆ HIV infection
- ◆ Substance use
- ◆ Other mental disorders
- ◆ Common non-HIV medical comorbidities, e.g., hepatitis C

## Common Treatment Dilemmas in Patients with HIV, Mental Illness and Substance Use

- ◆ Adequate access to and integration of mental health and substance use services.
- ◆ Maintaining adherence in patients with three chronic relapsing disorders.
- ◆ Provider countertransference to “self-destructive” and “manipulative” patient behaviors.
- ◆ Balancing harm reduction approaches with sensible limit-setting.
- ◆ Adequate differential diagnosis.

Level of evidence: Expert opinion

## Practice Question

### Do you screen for mental illness?

1. It's difficult so I don't.
2. It's not difficult to screen but I don't because I lack the time/ expertise/ resources to treat.
3. I screen and refer offsite for treatment.
4. I screen and treatment is available onsite.
5. I am NOT a clinician.

## Identifying Mental Illness: Screening



## Screening for Depression: PRIME-MD PHQ2

Over the last two weeks how often have you been bothered by any of the following problems:

- ◆ Little interest or pleasure in doing things.
  - 0=Not at all
  - 1=Several days
  - 2=More than half the days
  - 3=Nearly every day
- ◆ Feeling down, depressed or hopeless
  - 0=Not at all
  - 1=Several days
  - 2=More than half the days
  - 3=Nearly every day

The higher the score the more likely patient has depressive disorder  
Kroenke et al, Med Care, 2003

## Questions to Identify Anxiety

- ◆ Do you often worry or feel nervous?
- ◆ Are you often fearful of interacting with other people?
- ◆ Do you ever feel jittery, short of breath, or like your heart is racing?
- ◆ Do you ever feel as if you might lose control or fear that you may be "losing it"?

References and more tools: [www.hivguidelines.org](http://www.hivguidelines.org)

## Questions to Identify PTSD

In your life, have you ever had any experience that was so upsetting, frightening, or horrible that you:

- ◆ Have nightmares about it or think about it when you do not want to?
- ◆ Try hard not to think about it or go out of your way to avoid situations that remind you of it?
- ◆ Are constantly on guard, watchful, or easily startled?
- ◆ Feel numb or detached from others, activities, or your surroundings?

References and more tools: [www.hivguidelines.org](http://www.hivguidelines.org)

## Screening for Substance Use: Cage-AID (CAGE Adapted to Include Drugs)

Target Population: Adults and Adolescents > 16

- ◆ Have you ever felt the need to *cut* down on your use of alcohol or drugs?
- ◆ Has anyone *annoyed* you by criticizing your use of alcohol or drugs?
- ◆ Have you ever felt *guilty* because of something you've done while drinking or using drugs?
- ◆ Have you ever taken a drink or used drugs to steady your nerves or get over a hangover (*eye-opener*)?

A total of  $\geq 2$  may be suggestive of a problem  
References and more tools: [www.hivguidelines.org](http://www.hivguidelines.org)

## Assessment Instruments for Mental Disorders Among Children and Adolescents

- ◆ Often include observations of child by parents /teachers
- ◆ Apply as early as infancy
- ◆ Include assessments for depression, anxiety, attention deficit hyperactivity disorder, behavioral difficulties, and the presence of any DSM psychiatric diagnosis
- ◆ Many instruments also exist for assessing learning disabilities

Rush et al, Handbook of Psychiatric Measures, 2<sup>nd</sup> Edition, APPI, 2008

## Engaging Patients in Mental Health Care



## Approaches to Engaging Patients in Mental Health Care

---

- ◆ Integrate mental health care into health care
- ◆ Engage patient through motivational interviewing
- ◆ Do not use mental illness labels that are unacceptable to patient
- ◆ When possible and realistic, try counseling before medication
- ◆ If patient is sensitive to medication side effects, titrate doses very slowly

Level of evidence: Expert opinion

## Motivational Interviewing

---

- ◆ Clinician helps patient identify conflicts between patient's current behaviors and patient's goals/values
- ◆ Clinician reflects on discordance
- ◆ Patient realizes change is necessary and develops own solutions

Chanut et al., Can J Psych, 2005

## Techniques in Motivational Interviewing

---

- ◆ Ask open-ended questions
- ◆ Use reflective listening to discover discrepancies
- ◆ Express empathy
- ◆ Acknowledge strengths
- ◆ Support self-efficacy
- ◆ Avoid arguments
- ◆ Summarize discussions

## TREATING MENTAL DISORDERS



## Treatment of Mental Disorders in HIV+ People

---

- ◆ **Modify contributing factors**
  - Treat underlying medical illness
  - Modify medication side effects and use of substances
  - Address psychosocial problems
- ◆ **Psychotherapies – some manualized**
  - Cognitive behavioral therapy (CBT)
  - Interpersonal psychotherapy (IPT)
  - Motivational interviewing (MI)
  - Others (some include psychodynamic strategies)
- ◆ **Psychopharmacology**
  - Consider interactions with ARVs and drug toxicity
- ◆ **Inpatient care (suicide risk, medical work-up, grave disability)**
- ◆ **ECT/experimental brain stimulation treatments**

American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

## PSYCHOPHARMACOLOGY



### Antiretrovirals and Psychotropics: General Points

- ◆ Psychotropic medications maintain efficacy in the HIV+ population.
- ◆ Overlapping metabolic pathways in cytochrome P-450 system (3A4 and 2D6) → drug interactions (often theoretical).
- ◆ May facilitate or inhibit one another's metabolism. Websites, online resources are available for information.
- ◆ Overlapping toxicities, especially liver toxicity among patients co-infected with hepatitis viruses.
- ◆ But most psychotropics can be used safely if start low, go slow.

American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

### Reported Neuropsychiatric Adverse Effects of Medications Commonly Used in HIV Infection

Medication	Neuropsychiatric Adverse Effect(s)
Zidovudine (AZT)	Insomnia, agitation, mania, depression
Didanosine (ddl)	Insomnia, agitation, mania, depression
Abacavir	Fatigue, depression, suicidal ideation, headache, psychosis
Nevirapine	Vivid dreams/nightmares, depression
Efavirenz	Depression, suicidal ideation, insomnia, vivid dreams/nightmares, anxiety, psychosis, cognitive dysfunction and antisocial behavior
Interferon alpha 2a and ribavirin	Depression, suicidal ideation, anxiety, sleep disturbance, fatigue, mania, psychosis, delirium, cognitive dysfunction

### Medications for Depression/Anxiety

- ◆ Pharmacology of Depression
  - Caution in adolescents and young adults under 24 y.o.
  - SSRIs
  - SNRIs
  - TCAs
  - Other antidepressants
  - Atypical antipsychotics/mood stabilizers for bipolar depression
- ◆ Pharmacology of Anxiety
  - Decrease caffeine, nicotine and stimulant use
  - Antidepressants, especially SSRIs
  - Buspirone
  - Benzodiazepines

American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

**Depression is the Most Common Psychiatric Disorder for which HIV+ Patients Seek Treatment**

### Diagnosis of Depression in HIV: Affective vs. Somatic Symptoms

#### AFFECTIVE

- ◆ Depressed mood
- ◆ Loss of interest
- ◆ Guilt, worthlessness
- ◆ Hopelessness
- ◆ Suicidal ideation

#### SOMATIC

- ◆ Appetite/Weight loss
- ◆ Sleep disturbance
- ◆ Agitation/retardation
- ◆ Fatigue
- ◆ Loss of concentration

### Costs of Depression in HIV

- ◆ Reduction in work productivity
- ◆ Reduction in adherence to medication
- ◆ Reduced quality of life
- ◆ Increased sexual risk behavior
- ◆ Increased risk for suicide
- ◆ Increased longitudinal risk for the development of HIV-associated neurocognitive disorder
- ◆ Impaired immune function
- ◆ Increased mortality

## Depression and HIV Progression

- ◆ Depressive symptoms increase prior to the development of AIDS, Lyketsos et al., 1996
- ◆ Chronic depressive symptoms in HIV+ women predict CD4 decline and HIV-related mortality (OR=2), Ickovics, et al., 2001, Cook, et al., WHIS papers
- ◆ Treating with SSRI antidepressants improves adherence and biological markers (CD4 count, VL), Horberg et al., 2008

## Antidepressant Studies in HIV

- ◆ > 1000 patients treated in clinical trials
- ◆ Antidepressants 50-90% effective and superior to placebo
- ◆ Placebo response rates as high as 48%
- ◆ Average # concurrent HIV medications = 4
- ◆ Women and IVDUs underrepresented
- ◆ Depression diagnoses and outcome criteria vary
- ◆ HIV illness stage varies
- ◆ Duration varies (4 weeks-1 year)
- ◆ High attrition rates (19-55%)

Psychopharmacological Agents Studied in HIV
<b>Tricyclic Antidepressants</b>
Imipramine*
Desipramine*
<b>SSRIs</b>
Fluoxetine*
Sertraline
Paroxetine*
Citalopram
<b>Psychostimulants</b>
Dextroamphetamine*
Methylphenidate*
Pemoline* (primary endpoint fatigue but helped depression)
<b>Other Antidepressants</b>
Venlafaxine
Bupropion
Mirtazapine
Modafinil (primary endpoint fatigue but helped depression)
<b>Non-conventional Agents with Antidepressant Activity</b>
Testosterone*
Dehydroepiandrosterone (DHEA)*
S-adenosyl-methionine (SAM-e)
* Indicates at least 1 Randomized Controlled Trial documenting efficacy

## Suicide Risk Factors for HIV+ Individuals - USA

- ◆ African American, South and Latin American Descent
- ◆ Ages 25-54
- ◆ Personal/Family history of SAs
- ◆ Psychiatric disorder
- ◆ Drug/Alcohol abuse or dependence
- ◆ Higher levels of distress, hopelessness
- ◆ More reported HIV symptoms
- ◆ Multiple losses

## Treatment of Mania

- ◆ **Psychopharmacology**
  - Antipsychotics for acute management
  - Mood stabilizers ± antipsychotics for long-term management:
    - » Lithium – do not use if HIV nephropathy
    - » Anticonvulsants, however,
      - ◆ Carbamazepine: potent CYP3A4 enzyme inducer, may decrease levels of PIs and NNRTIs - AVOID
      - ◆ Valproic acid: inhibitor of glucuronidation; increases zidovudine, but dosage adjustment not recommended
      - ◆ Consider side effects & toxicities; labs
  - Benzodiazepines as adjunct
- ◆ **Electroconvulsive therapy (ECT)**

Practice Guideline for the Treatment of Patients with Bipolar Disorder, 2<sup>nd</sup> Ed.  
Available online at <http://www.psychiatryonline.com/pracGuide/pracGuideHome.aspx>

## Pharmacotherapy of Psychosis

- ◆ Older neuroleptics – high rates of extrapyramidal side effects
- ◆ Newer “atypical” antipsychotics – easier to use, but have metabolic complications

American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

### Antipsychotics: Relative Safety and Tolerability

Item	Typ	Clz	Ris	Otz	Qtp	Zip	Ari
EPS	+ to +++	±	± to +++*	± to +*	±	± to +*	± to +
TD	+++	±	± to +	± (?)	± (?)	± (?)	± (?)
Somnolence	± to +++	+++	±	+	++	±	±
Prolactin	+++	±	+++	±	±	±	±
Weight	± to ++	+++	+	+++	+	±	±
Dyslipidemia	± to +	+++	+	+++	++	±	±
DM	± to +	+++	+	+++	+	±	±
QTc	+	++	+	+	+	++	±
Orthostatic BP↓	± to +++	+++	++	+	++	±	±

\* = Dose-related  
± = none to minimal; + = mild; ++ = moderate; +++ = marked. Compared to placebo rates.

### References for Chart on Antipsychotics: Relative Safety and Tolerability

Chart developed by Frank Fernandez, MD, Chair  
Department of Psychiatry, USF, based on:

UK Medicines Information Pharmacists Group, 2003

Leucht et al, AJP, 2008

Parks, NASMHPD Guideline, 2008

Leucht et al, Lancet, 2009

Ray et al, NEJM, 2009

Schneeweiss and Avorn, NEJM, 2009

Tonks, BMJ, 2009

### Psychiatric Illness and Adherence

- ◆ Substance use, depression, and other mental illnesses can undermine adherence: Treat these disorders
- ◆ Creating stable life conditions enhances adherence
- ◆ Patient's readiness to adhere must be individually assessed
- ◆ Consider adherence support – Strategies:
  - Therapeutic alliance
  - Patient education
  - Memory aids
  - Observed medication administration
  - Integrated care
  - Outreach (“Inreach”)
  - Incentives—offer what is desired
- ◆ Motivational Interviewing

American Psychiatric Association Practice Guidelines and other reference documents [www.psych.org/aids](http://www.psych.org/aids)

### Educational Resources on HIV and Mental Health

- ◆ Local and national AETCs
- ◆ NYS AIDS Institute:  
[www.hivguidelines.org](http://www.hivguidelines.org)
- ◆ American Psychiatric Association Office of HIV Psychiatry:  
[www.psych.org/AIDS](http://www.psych.org/AIDS)
- ◆ HIV InSite  
<http://hivinsite.ucsf.edu>

### AETC National Programs

- National Resource Center (FXB/UMDNJ)
  - Provides virtual library of online training resources for adaptation to meet local training needs
  - [www.aidsetc.org](http://www.aidsetc.org)
- Warmline/PEpline (UCSF)
  - Telephone consultation for HIV clinical management and post-exposure prophylaxis management
  - Warmline: 800-933-3413
  - PEpline: 888-448-4911

