



# HIV/HCV Co-infection: An AETC National Curriculum

## HIV/HCV: A Behavioral Health and Psycho-social Perspective

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# Lesson Objectives

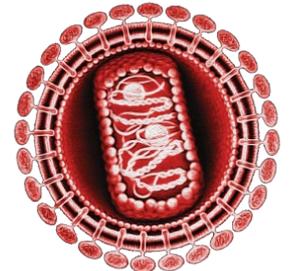
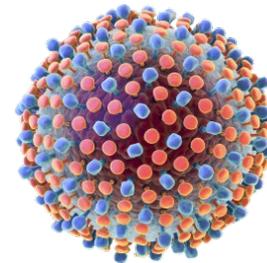
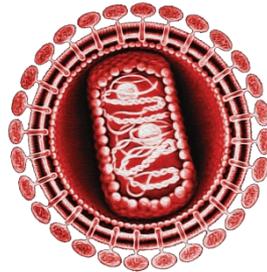
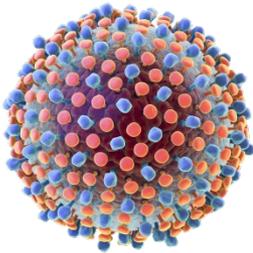
- To increase awareness of the common behavioral health conditions associated with HIV/HCV co-infection
- To gain an overview of some of the common treatments for behavioral health conditions in this population
- To address important psychosocial factors that influence the treatment of people living with HIV/HCV co-infection

# Common Behavioral Health Disorders among People with HIV/HCV Co-infection

- **Neurocognitive disorders**
- Depressive disorders
- Anxiety disorders
- Alcohol/Substance use disorders
- Psychotic illnesses and bipolar disorder
- Stress disorders, including PTSD
- Somatic problems: insomnia, pain, fatigue, sexual dysfunction

# Neurocognitive Disorders and Mental Illness May Manifest:

- Due to HCV infection alone
- Due to HIV infection alone
- Due to co-infection with HCV and HIV



# Cognitive Impairment in HCV Infection

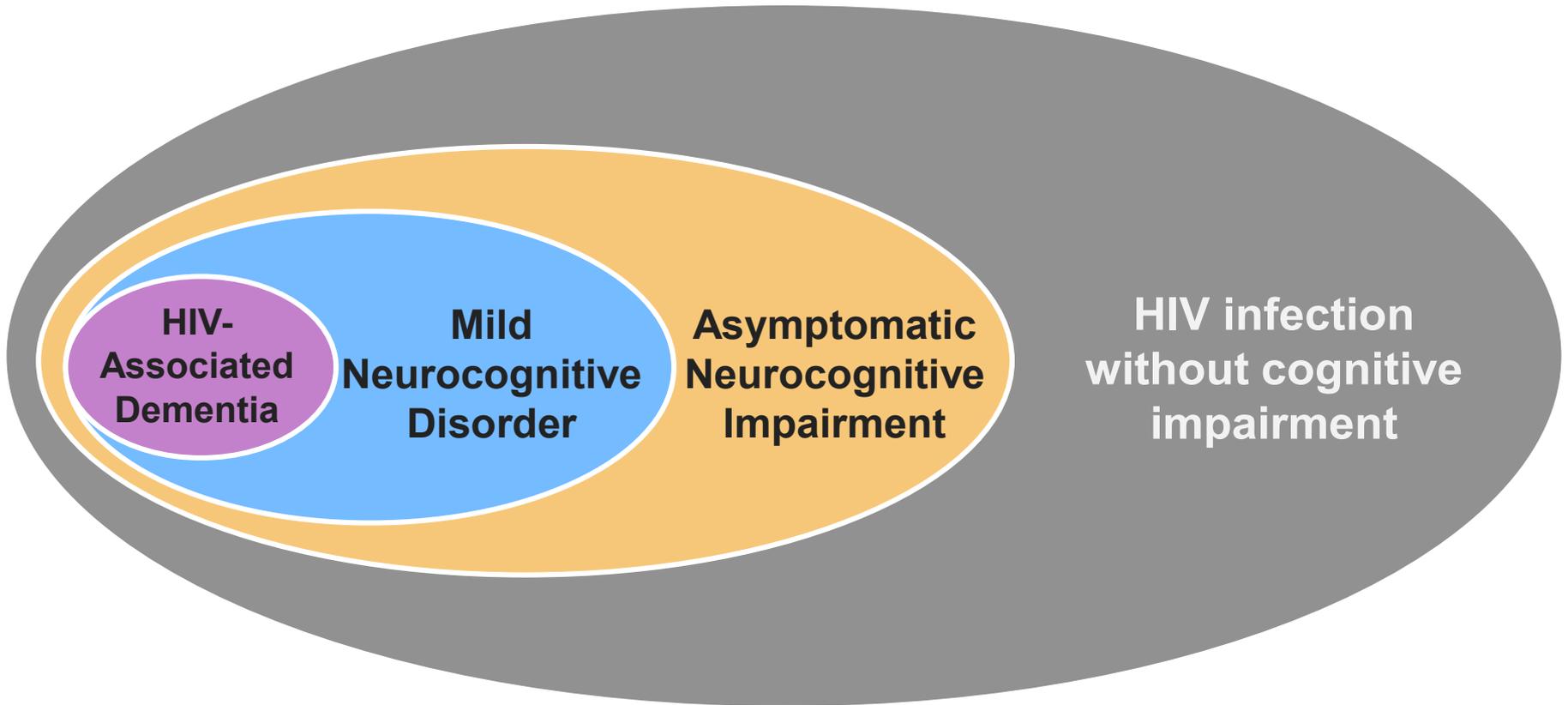
- Chronic HCV infection is associated with:
  - Impaired attention
  - Moving/speaking slowly
  - Impaired working memory
  - Impaired executive function
- Chronic HCV infection is also associated with an increased risk for dementia



# Cognitive Impairment in HCV Infection

- Potential Causes:
  - Direct HCV effects on the brain
  - Severity of liver disease and liver failure
  - Alcohol and substance use—both past and present
  - Depression and other mental illnesses
  - Interferon treatment—infrequently used now

# HIV Associated Neurocognitive Disorders (HAND) in the Era of Effective ART



**CHARTER Study** (n=1,555 HIV-infected adults)

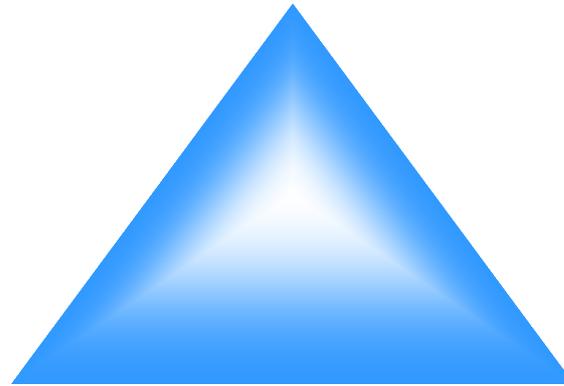
52% had NP impairment: HAD 2%, MND 12%, ANI 33%

Figure modified from Li, 2013<sup>13</sup>

# Clinical Features of Impairment due to HAND

## Cognition

Memory loss  
Concentration  
Mental slowing  
Comprehension



## Behavior

Apathy  
Depression  
Agitation, Mania

## Motor

Unsteady gait  
Poor coordination  
Tremor

# Cognitive Impairment in HIV/HCV Co-infection

- People with HIV/HCV co-infection
  - Have more cognitive difficulties and think/respond more slowly than people with HIV mono-infection
  - Do not differ in cognitive domains from people with HCV mono-infection

# Management and Treatment of Cognitive Impairment in HIV/HCV Co-infection

- The primary approach is to treat both infections:
  - Establish and maintain undetectable HIV viral load
  - Treat HCV infection to achieve sustained virologic remission (SVR, which is basically cure)
  - Address comorbidities that impair cognition
  - Use supportive strategies as appropriate
- Early treatment of HIV infection helps to prevent cognitive problems caused by HIV

# Common Behavioral Health Disorders among People with HIV/HCV Co-infection

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# Psychiatric Disorders Are Co-morbidities of HIV/HCV Co-infection

- HIV infection, HCV infection, and psychiatric disorders are syndemic (they travel together and negatively influence each other's course)
- People with psychiatric disorders have elevated rates of both HIV and HCV infection compared to the general population
- PLWH and/or HCV infection have higher rates of psychiatric disorders than the general population

# Screening Linked to Use of Clinical Calculators & Tools: The HIV National Curriculum: [www.aidsetc.org/nhc](http://www.aidsetc.org/nhc)

Mental Disorders Screening
Anxiety: GAD-2
Anxiety: GAD-7
Dementia: IHDS
Depression: PHQ-2
Depression: PHQ-9
PTSD: PC-PTSD-5

Substance Use Screening
Alcohol: AUDIT-C
Alcohol: CAGE
CAGE-AID
Drug Abuse: DAST-10
Drug Abuse: TICS
Opioid: Risk Tool

# Depression



# Depression in PLWH Is Associated with:

- Increased morbidity and mortality
  - women living with HIV and chronic depression are twice as likely to die
- Failure to initiate antiretroviral treatment (ART)
- Failure to adhere to ART once initiated
- Slower virologic suppression
- Higher rates of sexual risk behavior

# Depression Is a Common Co-morbidity of HIV Infection

- Present in about 30%-50% of PLWH in HIV care and treatment settings
- Rates vary by study design (e.g., population, severity threshold, measurement tools); and range from 0%-80%
- Routine screening for depression is recommended; the PHQ2 and the PHQ9 are most commonly used

# Assessment for Depression

- Evaluate for contributing biological factors, for example prescribed medications, alcohol and other substances, hypothyroidism, hypogonadism (men not producing enough testosterone), etc.
- Try to rule out bipolar disorder
  - Ask: Past history or family history of mania?
  - Ask: In the past year, while not high or intoxicated, did you ever feel extremely energetic or irritable and more talkative than usual?

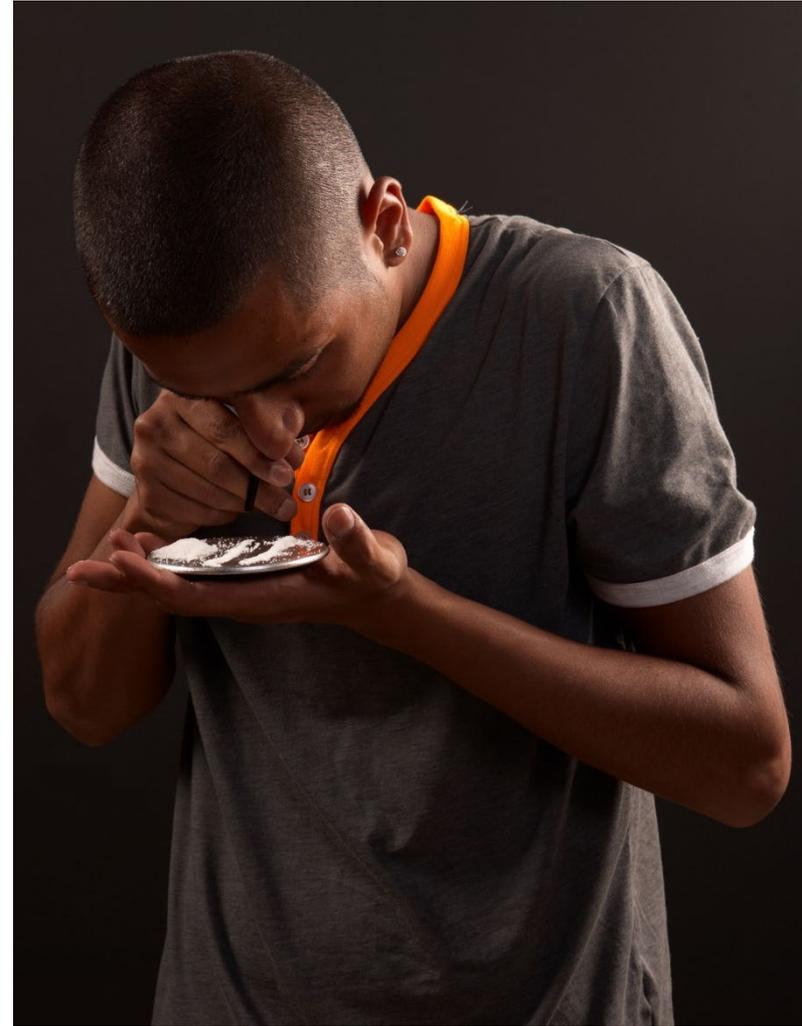
# Antidepressants: Limited Studies in HIV Treatment

- In general, SSRIs (serotonin-reuptake inhibitors) are well tolerated, safe, and have lower rates of drug discontinuation in studies with PLWH
  - SSRIs are the most studied antidepressants
  - All have equal efficacy
  - Paroxetine is category D in pregnancy
- Check for drug-drug interactions
- In primary care, attempt two antidepressant trials at adequate doses before referral

# Psychotherapy for Depression

- Effective psychotherapies (eg, CBT, IPT) for mild-moderate depression and/or to augment antidepressant medication in moderate-severe depression
- Factors contributing to availability
  - Degree of priority given to behavioral health in HIV/HCV rx settings
  - Presence of mental health providers in HIV/HCV rx settings
  - Note that experienced mental health providers tend to use mixed models of evidence-based therapies
  - Adequate reimbursement for therapy

# Alcohol/Substance Use and HIV



# Rates of Alcohol Use Disorders: General U.S. Population vs. PLWH

<b>Alcohol Use Disorders</b>	<b>General U.S. Population</b>	<b>U.S. Population of PLWH</b>
<b>Current (past 12 mos) Alcohol Use Disorder</b>	5-10%	3-12 %
<b>Lifetime Alcohol Use Disorder</b>	14-24%	22-64%

# Rates of Substance Use Disorders: General U.S. Population vs. PLWH

<b>Drug Use Disorders</b>	<b>General U.S. Population</b>	<b>U.S. Population of PLWH</b>
<b>Current (past 12 mos) Drug Use Disorder</b>	2-4%	2-19%
<b>Lifetime Drug Use Disorder</b>	6-12%	23-56%

# Alcohol/Substance Use in PLWH Is Associated with:

- Failure to initiate ART treatment
- Failure to adhere to ART once initiated
- Faster virologic failure
- Higher rates of sexual risk behavior
- Increased mortality

# Screening, Brief Intervention and Referral to Treatment (SBIRT)

SBIRT is an evidence-based practice used to identify, reduce, and prevent substance use problems and disorders

- SBIRT lends itself to use in primary/HIV/HCV care
- SBIRT is most effective with alcohol use problems

# Buprenorphine/Suboxone for Opioid Use Disorders (OUD)

- Buprenorphine and suboxone (buprenorphine + naloxone) treatment integrated into medical care for people with both HIV/HCV co-infection & OUD improves adherence to treatment
- Opioid substitution treatment is significantly associated with a lower risk of HCV reinfection following successful HCV treatment
- Medication-assisted treatment (MAT) is the standard of care for OUD

# Tobacco Addiction



# Impact of Tobacco Use among PLWH

- A study of tobacco smoking was conducted from 1995-2010 in Denmark where HIV care and treatment is free
  - 2,921 PLWH age 35 or over were followed for 14,281 person years and compared to controls
  - The number of life-years lost in association with HIV (without smoking) was 5.1
  - The number of life-years lost in association with HIV and smoking combined was 12.3

# Smoking and Mental Illness

Rates of smoking by type of mental disorder:

- No mental disorder: 21 %
- Any anxiety disorder: 38 %
- Any mood disorder: 45 %
- Any substance use disorder: 64 %

# Smoking and Mental Disorders

- Almost half of all cigarettes in the U.S. are consumed by people with mental disorder(s)
- Bupropion and varenicline increase smoking abstinence rates in smokers with mental disorders, and studies suggest they are safe to use in this population

# Post Traumatic Stress Disorder (PTSD)



# PTSD Prevalence

- 8% of adult U.S. population; 12% in women
- Highest rates found with interpersonal violence:
  - Survivors of rape (especially when under 16 years)
  - Military combat and captivity
  - Genocide
- Studies of rates of PTSD among PLWH vary from 5% - 74%
  - Varies with the population studied
  - Women in care for HIV in the U.S. have a rate of PTSD of about 30%

# Impact of PTSD on Course of HIV Disease

- There are few studies
- The common PTSD co-morbidities of depression and alcohol/substance use disorders are associated with worse HIV outcomes and should be treated
- PTSD is associated with more unexplainable pain and more HIV physical symptoms

# Treatment of PTSD

- A growing number of therapies have shown benefit for people with PTSD
- Antidepressants can also reduce PTSD symptoms (strongest evidence for fluoxetine, paroxetine and venlafaxine)

# Care Components for Neurocognitive and Behavioral Health Disorders

- Screen
- Confirm diagnosis
- Link to care
- Retain in care
- Provide successful treatment

# Provide Psychosocial Support and Address the Social Determinants of Health

HIV and HCV infection each travel with adverse social and economic circumstances

Major areas to address in treatment:

- Housing
- Food insecurity
- Benefits
- Social support

# Wellness and Self-Management Strategies

- Self-management is vital to well being.
- Self-management includes: Strategies to maintain health; exercising; obtaining adequate sleep; pursuing meaningful goals and pleasurable activities; seeking social and spiritual support; reducing interpersonal conflict and negative thinking; and avoiding preventable stressors.

# Authors and Funders

- The original presentation was prepared by Francine Cournos, MD (Northeast/Caribbean AETC) for the AETC National Coordinating Resource Center in July 2017. Modifications were made for today's talk.
- The original presentation is part of a curriculum developed by the AETC Program for the project: *Jurisdictional Approach to Curing Hepatitis C among HIV/HCV Co-infected People of Color* (HRSA 16-189).
- The complete HIV/HCV Co-infection: An AETC National Curriculum is available (with references) at:  
<https://aidsetc.org/hivhcv>