Managing Patients with Substance Abuse

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Objectives

- Epidemiology: Substances most likely to be misused in HIV care settings.
- Diagnostic and behavioral considerations
- Screening and Brief Intervention in HIV care settings.
- Medications and evidence-based behavioral interventions that can be used in HIV care settings.

Off-Label Disclosure

There will be no off-label/investigational uses discussed in this presentation.
### Major Substances in Clinical Settings

- **ALCOHOL**
  - Withdrawal concerns, sedating effects
- **NICOTINE**
  - In context of immune compromise
- **OTHER STIMULANTS** (esp meth, cocaine)
- **OPIATES**
  - Holy Trinity: benzo, muscle relaxant, Oxy/Norco
- **POT** (5.8% in 2007; 7.5% in 2013, NSDUH)
  - Aspergillus

### Definitions of a Spectrum: Substance Use to Substance Use Disorder

No use - or use that does not cause problems

Odd of substance use causes problems occasionally to frequently

Addiction

8.2% of Americans = 22 million adults NSDUH, 2014, SAMHSA.gov

### DSM-5 Definition: Substance Use Disorder

Maladaptive pattern of use, *clinically significant impairment or distress* and 2+ of the following in the same 12-month period:

1. Tolerance
2. Withdrawal
3. Used for longer periods than intended
4. Can't cut down or quit
5. Time spent getting, using or recovering
6. Give up social, work or fun activities
7. Craving or a strong desire or urge to use a substance
8. Continued use despite knowledge of negative consequences
9. Failure to fulfill major role obligations
10. Use in physically hazardous situations
11. Continued use despite social and interpersonal problems
EPIDEMIOLOGY

Relevant Populations in HIV Care

### Lifetime and Past Year Prevalence of Alcohol and Drug Use Disorders in the NESARC by Reported Sexual Identities (n=34,653)

<table>
<thead>
<tr>
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<th>Lifetime (%)</th>
<th>Past Year (%)</th>
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<tbody>
<tr>
<td></td>
<td>Alcohol Use Disorder</td>
<td>Drug Use Disorder</td>
</tr>
<tr>
<td>Gay</td>
<td>58.7</td>
<td>32.7†</td>
</tr>
<tr>
<td>Bisexual</td>
<td>52.1</td>
<td>25.0</td>
</tr>
<tr>
<td>Hetero</td>
<td>47.7</td>
<td>15.7</td>
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</table>

†p<0.01; Differences between Gay, Bisexual compared to Heterosexual men


### The Most Devastating Drug is Licit

- Most preventable cause of morbidity and mortality
- 440,000+ premature deaths annually

Worm et al. 2013; BMC Inf Dis, 13:71
Alcohol and HIV

• In the Veterans Aging Cohort Study, compared to other types of alcohol drinkers, severe chronic alcohol drinkers started drinking at younger age, had longer duration of cigarette smoking and more cocaine use (Jacob T et al., 2013. Alc Clin Exp Res; 37: 1179-1187)

• In the Moore Clinic, 10.4% reported hazardous drinking, 11.6% had markers indicating liver fibrosis (Chaudrey et al. 2008. HIV Med; 10:133-142)

Cannabis and HIV: Hazy Conclusions

• 21-day RCT of TID dronabinol, smoked marijuana, or placebo
  – No differences on RNA (copies/ml, counts of UDL) or counts of CD4, CD8 in 62 HIV-positive subjects
  (Abrams D, Ann Intern Med. 2003; 138:258-266)

• IQ drops in chronic smokers (Meier et al., PNAS, 2012)

Opioids

• About 1 million Americans
• Only 160,000 in opioid agonist treatment
• Difference in HIV prevalence in heroin injectors in U.S. depends upon geography, with Western U.S. very low; Eastern U.S. moderate to high
INTERVENTIONS

Ensure Access to cART
Screening Tools
Medication Assisted Therapies (opiates, nicotine, alcohol)
Brief Behavioral Interventions

Cocaine and Meth: Health and Behavioral Effects

- Crack cocaine (WIHS):
  - ↑ plasma VL, ↓ CD4, and ↑ morbidity/mortality (Cook et al., 2008, AIDS, 22:1355-1361)
- Meth (MACS):
  - No effects on mortality (Carreiro et al. 2014, AIDS, 38:208-13)
  - Meth & cocaine ↓ CD4:CD8 ratios, but association swamped in comparison to ART (Shoptaw et al., 2012, Int J STD & AIDS, 23:576-581)
- Acute meth use:
  - ↓ ART adherence; ↑ plasma VL (Hinkin et al., 2007, AIDS Behav 11:185-194; Ellis et al., 2003, JID 188:1820-26)

ART in IDUs and NIDUs: Access Denied

![Table]

McGowan et al., 2011. PLOSOne, 6:e18462
Brief Intervention – 5 A’s

Ask: Implement an office-wide system that ensures that, for every patient at every visit, ATOD use status is queried and documented.

Advise: In a clear, strong, and personalized manner, urge every patient using ATOD to quit.

Assess: Ask every ATOD using patient if s/he is willing to make a quit attempt now (next 30 days).

Assist: Help the ATOD using patient plan, provide practical counseling, recommend meds, be supportive.

Arrange: Provide for follow-up support, phone calls.

Adapted from Fiore et al., 2008, Clinical Practice Guidelines for Smoking Cessation.

“Quitting smoking is easy. I’ve done it a thousand times” (Mark Twain)

- Seven first-line medications (5 nicotine and 2 non-nicotine) reliably increase long-term smoking abstinence rates:
  - Buproprion SR
  - Nicotine gum
  - Nicotine inhaler
  - Nicotine lozenge
  - Nicotine nasal spray
  - Nicotine patch  AHRQ, 2008
  - Varenicline

- Clinicians should also consider the use of certain combinations of medications identified as effective in the Guideline.
Smoking Cessation Treatment Tailored for HIV-Positive

- Positively Smoke Free: NRT + Tailored counseling approach (Social cognitive theory); Control: NRT + standard care; 7 day point abstinence at 3 months. Positively Smoke Free trended for abstinence (19.2% v 9.7%, p=.11) (Moudel et al. 2012. JAIDS; 61:208-215).

Telephone Quit Lines

- Telephone quit lines funded by 1998 Master Settlement Agreement
- Connects smokers with trained counselors
  - Individual smoking history, customized cessation plan including pharmacotherapy follow-up telephone calls
- 1 800-NOBUTTS provides vouchers for medications for Medical recipients
- Telephone quit lines are convenient, serve diverse and multilingual populations, and anonymity
- 70%-85% of smokers would prefer to use a quit line to a clinician.
- Only 4.5% of smokers in California could identify quit lines as a way to help them quit
- Odds of cessation are 1.56, which compares to NRT which are 1.74 (Schroeder, JAMA, July 2005).

Alcohol Medications

- Disulfiram (Antabuse) – inhibits alcohol dehydrogenase, causing toxic reaction; ATZ inactivates enzyme reaction
- Naltrexone (ReVia) – opioid antagonist thought to block alcohol highs
- Naltrexone (Vivitrol) – depot opioid antagonist
- Acamprosate (Campral) – calcium channel blocker, glutamate antagonist, unknown mechanism
Self-Help Approaches

• 12-Step Programs are effective, despite lack of efficacy data
  – Application to many “addictions”

• SMART Recovery
  – Enhance motivation; cope with urges; manage harmful behavior; establish lifestyle balance.

Opioid Agonist Treatments

• Cheap (especially for methadone)
• Potent
• Portable (especially for buprenorphine)

Contingency Management

• Incentives for biological markers of healthy behaviors
  – Chennai India: Significantly improved engagement in HIV care and number initiating ART among HIV-positive users of injection opiates (Solomon et al. 2012, CROI #1145)
    • No difference in HIV disease markers, which underscores importance of target behavior.
  – Los Angeles: Significantly increased completion rates of PEP among meth-using MSM in Los Angeles (Landovitz et al., 2015, OFID)
    – Incredibly flexible intervention tool to address a variety of behavior problems.
Conclusions

• Patients in care settings use substance at similar or higher levels than general population
• Stimulants, particularly nicotine, present enhanced risks for morbidity and mortality
• Ensuring access to ART for individuals who use substances facilitates better overall and HIV-outcomes
• Medically Assisted Treatments for nicotine, opioids; less effective medications for alcohol
• Screening tools can be implemented into the care setting to identify patients at risk for substance related morbidities
• Behavioral treatments for substance misuse in care settings can be successfully and creatively used