Heroin and HIV: What Clinicians Need to Know

Trainer Name

Training Date

Training Location
Training Collaborators

- LA Region Pacific AIDS Education and Training Center
- Pacific Southwest Addiction Technology Transfer Center
- UCLA Integrated Substance Abuse Programs
Test Your Knowledge
1. The acute effects of heroin include all of the following except:

A. Increased heart rate
B. Sedation
C. Slurred speech
D. Nausea
E. Respiratory depression
2. Recent data show that young drug users are unlikely to shift from prescription opioid use to heroin:

A. True
B. False
3. Heroin is the **most widely used** illicit drug of abuse in the United States:

A. True  
B. False
4. Racial/ethnic minority injection drug users are twice as likely to be HIV seropositive than majority group injection drug users from the same country:

A. True
B. False
5. The goal of effective medication-assisted treatment for heroin addiction should be:

A. Short term stabilization and withdrawal
B. A treatment of last resort
C. Ongoing maintenance
D. A and C
E. None of the above
Introductions

Briefly tell us:

- What is your name?
- Where do you work and what you do there?
- Who is your favorite musician or performer?
- What is one reason you decided to attend this training session?
Educational Objectives

At the end of this training session, participants will be able to:

1. **Review the neurobiology, medical consequences, and epidemiology of heroin use.**

2. **Explain why and how heroin use increases a user’s risk of being exposed to HIV.**

3. **Discuss the key concepts of at least three effective behavioral interventions and three medical interventions for heroin addiction.**
Why is it Important to Talk about Heroin?

• In the U.S., heroin-related deaths have nearly quadrupled between 2000 and 2013
• Many young users across the country are shifting from prescription opioids to heroin, because it is more potent, cheaper, and more readily available
• Injection rates are higher than previous years
• An antidote exists to prevent heroin overdose!

Why is it Important to Talk about Heroin?

ABUSE OF PRESCRIPTION PAIN MEDICATIONS
RISKS HEROIN USE

In 2010 almost 1 in 20 adolescents and adults - 12 million people - used prescription pain medication when it was not prescribed for them or only for the feeling it caused. While many believe these drugs are not dangerous because they can be prescribed by a doctor, abuse often leads to dependence. And eventually, for some, pain medication abuse leads to heroin.

- Prescription Pain Reliever (14% dependent)
- Heroin (54% dependent)

Number of People Who Abused or were Dependent on Pain Medications and Percentage of Them that Use Heroin

- 2004: 1.4 million, 5%
- 2010: 1.9 million, 14%

Heroin users are 3X as likely to be dependent
14% of non medical prescription pain reliever users are dependent
54% of heroin users are dependent

Heroin Emergency Room Admissions Are Increasing

SOURCE: Busch et al., 2014.
Addiction Is a Brain Disease, and It Matters

Alan I. Leshner

Scientific advances over the past 20 years have shown that drug addiction is a chronic, relapsing disease that results from the prolonged effects of drugs on the brain. As with many other brain diseases, addiction has embedded behavioral and social-context aspects that are important parts of the disorder itself. Therefore, the most effective treatment approaches will include biological, behavioral, and social-context compo-

Recognizing addiction as a chronic, relapsing brain disorder characterized by compulsive drug seeking and use can impact society’s overall health and social policy strategies and help diminish the health and social costs associated with drug abuse and addiction.

affects both the health of the individual and the health of the public. The use of drugs has well-known and severe negative consequences for health, both mental and physical. But drug abuse and addiction also have tremendous implications for the health of the public, because drug use, directly or indirectly, is now a major vector for the transmission of many serious infectious diseases—particularly acquired immunodeficiency syndrome (AIDS), hepatitis, and tu-
Why Do People Take Drugs?

To feel good
To have novel:
Feelings
Sensations
Experiences
AND
To share them

To feel better
To lessen:
Anxiety
Worries
Fears
Depression
Hopelessness
Withdrawal

In other words:

A Major Reason People Take a Drug is they Like What It *Does to Their Brains*

Addiction is, Fundamentally, A Brain Disease

...BUT

It’s Not Just a Brain Disease

Vulnerability to Addiction Differs from Person to Person

Between 40 and 60 percent of a person’s vulnerability to alcohol and tobacco addiction is due to genetic influences.

Vulnerability to Addiction Differs from Person to Person

Environmental factors (e.g., conditions at home, at school, and in the neighborhood) also play a role

Drug Addiction is a Chronic Brain Disorder

The brain shows distinct changes after drug use that can persist long after the drug use has stopped.
Why Can’t People Just Stop Using Alcohol or Drugs?

Prolonged substance use changes the brain in fundamental and long-lasting ways!
Opioids
Opiate vs. Opioid – Is there a Difference?

• The short answer is YES!
• Opiates are derived directly from the opium poppy by departing and purifying the various chemicals in the poppy.
• Opioids include all opiates but also include chemicals that have been synthesized in some way.
  – Morphine is an opioid and also an opiate
  – Methadone is an opioid but not an opiate

What is heroin? An opioid or an opiate?
Opioid Receptors

• Receptor types
  – mu, delta, kappa

• Receptors located throughout body
  – Pain relief: central and peripheral nervous system
  – Reward and reinforcement: deep brain structures
  – Side effects: constipation, sedation, itch, mental status changes
What Is Dopamine?

A neurotransmitter

Working Normally, it produces feelings of pleasure and is involved in decision making.

Working Abnormally, leads to cravings, depression, difficulties with decision making and memory problems.
First, Let’s Look at Normal Dopamine Transmission
Now, Let’s Take a Look at Opioid Addiction

Some Examples:
- Morphine
- Heroin
- Codeine
[18F] Cyclofoxy (a Selective Opioid Antagonist) Binding in Human Brain: Normal Volunteer PET Study - NIH

Abnormal Dopamine Functioning

**AMPHETAMINE**

- DA
- DOPAC
- HVA

**COCAIN**

- DA
- DOPAC
- HVA

**MORPHINE**

- Dose (mg/kg)
  - 0.5
  - 1.0
  - 2.5
  - 10

**ETHANOL**

- Dose (g/kg ip)
  - 0.25
  - 0.5
  - 1
  - 2.5

*SOURCE: Shoblock et al., 2003; Di Chiara & Imperato, 1998.*
EFFECTS OF HEROIN
• Increase feelings of pleasure
• **Depress breathing**
• Block pain messages

Acute Effects of Heroin

- Euphoria
- Pain relief
- Suppresses cough reflex
- Histamine release
- Warm flushing of the skin
- Dry mouth
- Drowsiness and lethargy
- Sense of well-being
- Depression of the central nervous system (mental functioning clouded)
Acute Effects of Heroin, continued

- Sedation
- Pupil constriction
- Slurred speech
- Impaired attention/memory
- Constipation, urinary retention
- Nausea
- Confusion, delirium
- Seizures
- Slowed heart rate
- Respiratory depression
Long-Term Effects of Heroin

- Fatal overdose
- Collapsed veins
- Infectious diseases
- Higher risk of HIV/AIDS and hepatitis
- Infection of the heart lining and valves
- Pulmonary complications & pneumonia
- Respiratory problems
- Abscesses
- Liver disease
- Low birth weight and developmental delay
- Spontaneous abortion
- Cellulitis
Symptoms of Heroin Withdrawal

- Dysphoric mood
- Nausea or vomiting
- Diarrhea
- Tearing or runny nose
- Dilated pupils
- Muscle aches
- Goosebumps
- Sweating
- Yawning
- Fever
- Insomnia
What does Epidemiology Research Tell Us about Heroin Use?
Past Month Illicit Drug Use among Persons Aged 12 or Older, 2013

SOURCE: SAMHSA, CBHSQ, NSDUH, 2013 Results.
Past Month and Past Year Heroin Use among Persons Aged 12 and Older, 2002-2013

SOURCE: SAMHSA, CBHSQ, NSDUH, 2013 Results.
Mean Age at First Use for Illicit Drugs among Past Year Initiates Aged 12-49, 2013

SOURCE: SAMHSA, CBHSQ, NSDUH, 2013 Results.
Past-Year Heroin Dependence or Abuse among Individuals 12 or Older, by Age Group, 2013

SOURCE: Lipari & Hughes, 2015.
Treatment Admissions for Primary Drug Abuse: U.S., 2002-12

Heroin Admissions by Gender, Age, and Race/Ethnicity, 2012

SOURCE: SAMHSA, OAS, TEDS, 2012 Results.
Characteristics of Heroin Treatment Admissions, 2012

• 71% injected heroin; 24% inhaled
• 67% reported daily heroin use
• 80% had at least one previous treatment episode; 27% had 5+previous episodes
• 57% were self- or individually referred; 16% were referred by the criminal justice system

SOURCE: SAMHSA, OAS, TEDS, 2012 Results.
Treatment Admissions for Primary Drug Abuse: California, 2001-11

Heroin: 17.2% of all admissions in 2011

Other Opiates: 5.6% of all admissions in 2011

SOURCE: SAMHSA, OAS, TEDS, 2011 Results.
<table>
<thead>
<tr>
<th></th>
<th>8th Graders</th>
<th>10th Graders</th>
<th>12th Graders</th>
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</thead>
<tbody>
<tr>
<td>Lifetime Use</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Past Year Use</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Current Use</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Rates of Emergency Department Visits per 100,000 Population Involving Illicit Drugs, 2011

Heroin Poisoning (Overdoses) in California, 2005-2014

Age-Adjusted Rates for Drug-Poisoning Deaths, 2000-2013

SOURCE: Hedegaard et al., 2015.
The Intersection of Heroin Use and HIV/AIDS
## Diagnoses of HIV Infection by Transmission Category, 2013

<table>
<thead>
<tr>
<th>Transmission Category</th>
<th>Estimated Number of Diagnoses of HIV Infection, 2013</th>
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<tbody>
<tr>
<td></td>
<td>Adult and Adolescent Males</td>
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<tr>
<td>Male-to-male sexual contact</td>
<td>30,689</td>
</tr>
<tr>
<td>Injection drug use</td>
<td>1,942</td>
</tr>
<tr>
<td>Male-to-male sexual contact and injection drug use</td>
<td>1,270</td>
</tr>
<tr>
<td>Heterosexual contact</td>
<td>3,887</td>
</tr>
<tr>
<td>Other</td>
<td>99</td>
</tr>
</tbody>
</table>

**SOURCE:** Centers for Disease Control and Prevention, 2015.
Estimating the Number of Persons who Inject Drugs (PWID) to Calculate National HIV Rates

• Lifetime PWID comprised 2.6% of the US population aged 13 and older
  – 6,612,488 PWID
• Estimate of past-year PWID was 0.30%
  – 774,434 PWID
• The 2011 HIV diagnosis rate was 55 per 100,000 PWID
• The rate of persons living with a diagnosis of HIV in 2010 was 2,147 per 100,000 PWID

SOURCE: Lansky et al., 2015.
Substance Abuse and HIV/AIDS: What’s the Link?

• Substance abuse and addiction have been closely linked with HIV/AIDS since the beginning of the epidemic
  – Injection drug use
  – Poor judgment and risky behavior
  – Biological effects of drugs
  – Substance use disorder treatment as HIV prevention

It’s a Combination of Many Issues

Drug use, HIV, viral hepatitis, and other infectious diseases, mental illnesses, social dysfunctions, and stigma are often **co-occurring conditions** that affect one another, creating more complex health challenges that require comprehensive treatment plans **tailored to** meet all of a patient’s needs.
Why Does Heroin Use Create Special Risks for Contracting HIV?

- Heroin use increases the risk of being exposed to HIV (and other infectious agents) through:
  - contact with infected blood or body fluids (e.g., semen, saliva) that results from the sharing of syringes
  - injection paraphernalia that have been used by infected individuals
  - unprotected sexual contact with an infected person.
HIV and Injection Drug Use in the United States – Prevention Challenges

- HIV infections due to injection drug use have declined, but risk remains significant.
- Use of injection drugs can reduce inhibitions and increase risk behaviors.
- Sharing syringes is a direct route of HIV transmission.
  - Approximately 1/3 of PWID reported sharing syringes and more than 50% reported sharing other injection equipment in the past 12 months.

SOURCE: Centers for Disease Control and Prevention, 2015.
Injection Drug Use and Sexual Behavior

- People who inject drugs (PWIDs) are at risk of becoming infected with HIV virus and spreading the infection to their sex partners through unsafe sex.
- PWIDs can act as a bridge to transmit HIV to non-injectors with whom they have sexual contact.
- PWIDs tend to underestimate the importance of condom use in sexual intercourse and have very low levels of condom use.

Injection-Related HIV Risk Behavior

- Direct sharing/repeated use of needles and syringes for injecting

- Indirect sharing/sharing of the paraphernalia used for drug injection
  - Sharing or using unclean water, cookers or cotton
  - Stirring drug solution with used syringe plungers
  - Squirting the drug solution from a previously blood-contaminated syringe into the drug

Racial/Ethnic Disparities in HIV Rates among IDUs Globally

- Racial/ethnic minority IDUs are twice as likely to be HIV seropositive than majority group IDUs from the same country
- Disparities are particularly high in the U.S. and China
- Addressing racial/ethnic disparities in HIV infection among IDUs is a fundamental issue in the fight against HIV, particularly in the context of growing emphasis on policies based on scientific evidence and human rights

SOURCE: Des Jarlais et al., 2012.
Factors that may Influence Young People to Transition to Injection

- Curiosity
- More pleasure (tolerance development)
- “Better trip”, stronger effect, and a quicker onset of the effect
  - This is especially relevant when tolerance to a drug begins to develop and the effects are no longer as strong
- Financial considerations
- Visibility

An Increasing Number of Young People in the U.S. are Injecting Drugs

• Young people who inject drugs face high levels of risk for HIV, HCV, other STDs, and drug overdose

• It is important to monitor the prevalence of IDU among young opioid users

• Recent increases in non-medical use of prescription opioids may lead new non-injecting opioid users to start injecting prescription opioids or transition to heroin or stimulant injection

SOURCE: Des Jarlais et al., 2012.
Estimated Prevalence of Youth who Inject Drugs in 6 Large U.S. MSAs and the Mean across 95 Large MSAs (1992-2007)

SOURCES: Chatterjee et al., 2011; Tempalski et al., 2013.
Case Study #1: Identifying Service Needs for a Young Patient who Uses Heroin

A new patient states that he recently started injecting heroin, after having used alcohol, Vicodin, and ecstasy for the past three years. He has come in to see you today for an HIV test, because he recently shared a needle with someone he describes as “shady.”

• What questions do you need to ask this patient to determine next steps for care?
Effective Behavioral Treatment Interventions for Heroin Addiction
What Treatments are Effective for Heroin Addiction?

- Heroin abuse and addiction is a complex problem involving biological changes in the brain as well as a myriad of social, familial, and environmental factors.
- Treatment strategies need to assess the psychobiological, social, and pharmacological aspects of the patient's drug abuse.

Behavioral Approach #1: Contingency Management (CM)

- CM is also known as Motivational Incentives.
- May be particularly useful for helping patients achieve initial abstinence.
- Some CM programs use a voucher-based system to give positive rewards for staying in treatment and remaining drug-free.
  - Based on drug-free urine tests, the patients earn points, which can be exchanged for items that encourage healthy living, such as joining a gym, or going to a movie and dinner.

Behavioral Approach #2: Cognitive Behavioral Therapy (CBT)

• Relapse Prevention
• Underlying assumption = learning processes play an important role in the development and continuation of drug abuse and dependence.
• CBT attempts to help patients recognize the situations in which they are most likely to use drugs, avoid these situations when appropriate, and cope more effectively with a range of problems and problematic behaviors associated with drug abuse.
• CBT is compatible with a range of other treatments patients may receive, such as pharmacotherapy.

SOURCE: McHugh et al., 2010.
Behavioral Approach #3: Therapeutic Communities (TCs)

- Residential programs with planned lengths of stay of 6 to 12 months.
- A focus on re-socialization of the individual to society, and can include on-site vocational rehabilitation and other supportive services.
- Variation exists with regards to the types of therapeutic processes offered in TCs.

Behavioral Approach #4: Motivational Interviewing (MI)

- “...a directive, client-centered method for enhancing intrinsic motivation for change by exploring and resolving ambivalence (Miller & Rollnick, 2002).
- “...a way of being with a client, not just a set of techniques for doing counseling” (Miller and Rollnick, 1991).

MI: Basic Principles and Micro-Skills

– Motivational Interviewing Principles:
  – Express empathy
  – Develop discrepancy
  – Roll with resistance
  – Support self-efficacy

– Motivational Interviewing Micro-Skills (OARS):
  – Open-Ended Questioning
  – Affirming
  – Reflective Listening
  – Summarizing

Behavioral Approach #5: 12-Step Facilitation Therapy

• An active **engagement** strategy to:
  – Increase the likelihood of an individual becoming affiliated with and actively involved in 12-step self-help groups
  – Promote abstinence from alcohol and other drugs

• Three key aspects, including:
  – Acceptance
  – Surrender
  – Active Involvement

Effective Medical Treatment Interventions for Heroin Addiction
MAT: What do you think?

Medication is not a part of treatment.

A. Strongly Disagree
B. Disagree
C. Neutral
D. Agree
E. Strongly Agree
MAT: What do you think?

Medications are drugs, and you cannot be “clean” if you are taking anything.

A. Strongly Disagree
B. Disagree
C. Neutral
D. Agree
E. Strongly Agree
MAT: What do you think?

Alcoholics Anonymous (AA) & Narcotics Anonymous (NA) do not support the use of medications.

A. Strongly Disagree
B. Disagree
C. Neutral
D. Agree
E. Strongly Agree
MAT: What do you think?

*MAT is not effective.*

A. Strongly Disagree
B. Disagree
C. Neutral
D. Agree
E. Strongly Agree
How do Medications for Opioid Addiction Work?

There are three types of medications that can prevent the “high”:

**Agonists**
- produce opioid effects

**Partial Agonists**
- produce moderate opioid effects

**Antagonists**
- block opioid effects
How Do Medications for Opioid Addiction Work?

- **Full Agonist** (e.g., methadone)
- **Partial Agonist** (e.g., buprenorphine)
- **Antagonist** (e.g., Naloxone)
FDA-Approved Medications for Opioid Addiction

- Methadone
- Buprenorphine
- Naltrexone
Methadone

- Alleviates withdrawal and blocks euphoria.
- Used for detoxification or maintenance.
- Also known as:
  - Methadose®
  - Dolophine®
- Approved: 1964
- Third-Party Payer Acceptance: Covered by most major insurance carriers, Medicare, Medicaid and the VA.
How Does Methadone Work?

It’s a Full Agonist:

- Binds to the same receptor sites as other opioids
- Orally effective
- Slow onset of action
- Long duration of action
- Slow offset of action
# Opioid Treatment Programs (OTPS) in California

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Facilities with OTPs</td>
<td>139</td>
<td>11.9%</td>
</tr>
<tr>
<td>Clients in Facilities with OTPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>30,065</td>
<td>94.1%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>182</td>
<td>0.6%</td>
</tr>
<tr>
<td>Clients in Facilities without OTPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>1,715</td>
<td>5.4%</td>
</tr>
<tr>
<td>Total</td>
<td>31,962</td>
<td>100.0%</td>
</tr>
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</table>

Individuals Enrolled in Opioid Treatment Programs (OTPs) in California Receiving Methadone: Single-Day Counts (2009-2013)

The number of individuals in California who received methadone in OTPs as part of their substance use treatment increased from 2009 to 2013.

What Does the Research Say?

Methadone is the most studied medication for opioid addiction.

- 8-10 fold reduction in death rate
- Reduces opioid use
- Reduces crime
- Improves family and social functioning
- Increases likelihood of employment
- Improves physical and mental health
- Reduces spread of HIV
- Low drop-out rate compared to other treatments

High Rate of Relapse to IV Drug Use after Drop-Out from Methadone Treatment

Source: Ball & Ross, 1991.
Buprenorphine Products

• Generic Formulations
  – Three buprenorphine mono-products
  – Two combination buprenorphine/naloxone products

• Brand Names
  – Two buprenorphine/naloxone combination products
    • Suboxone® film [2/0.5, 4/1, 8/2, 12/3mg]
    • Zubsolv® sublingual tablets [1.4/0.36, 5.7/1.4]

How Does Buprenorphine Work?

It’s a Partial Agonist:

– Agonist effect helps the patient to feel normal, without craving or withdrawal
– Binds strongly to opiate receptor
– Blocks opiate effects
– Ceiling effect at higher doses

• Safer than methadone or other full agonists
Buprenorphine/Naloxone “the Combo Product”

- Preserves buprenorphine’s effects when taken sublingually at optimal ratio

- Action, safety, and efficacy **same** as buprenorphine alone
  - Also contains Naloxone (same as Narcan used to reverse OD) - inert unless injected
  - Discourages IV use, diversion
  - Allows for take-home dosing
  - **Dysphoric effects** if injected by physically dependent persons
How Does the Combo Product Work?

- Buprenorphine and naloxone have different sublingual (SL)-to-injection potency profiles that are optimal for use in a combination product.

<table>
<thead>
<tr>
<th>SL Bioavailability</th>
<th>Injection to Sublingual Potency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine 40-60%</td>
<td>Buprenorphine ≈ 2:1</td>
</tr>
<tr>
<td>Naloxone 10% or less</td>
<td>Naloxone ≈ 15:1</td>
</tr>
</tbody>
</table>

SOURCE: Amass et al., 2004.

The number of individuals in California who received buprenorphine as part of their substance use treatment increased from 2009 to 2013.

In a single-day count in 2013, 30,872 individuals in California were receiving methadone as part of their substance use treatment, and 2,154 were receiving buprenorphine.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey of Substance Abuse Treatment Services, 2009 to 2013.

What Does the Research Say?

• Buprenorphine is about as effective as 60 mg daily of methadone.

• In one study, after a year of buprenorphine plus counseling, 75% of patients were retained, compared to 0% in a placebo plus counseling condition.

SOURCES: Fischer et al., 1999; Johnson et al., 1995; Johnson et al., 1992; Kakko et al., 2003; Ling et al. 1998; Strain et al., 1994.
Naltrexone

Naltrexone hydrochloride

Marketed As:
- Depade® (oral tablets)
- ReVia® (oral tablets)
- Vivitrol® (extended-release naltrexone)

Indication:
- In the treatment of alcohol dependence and for the blockade of the effects of exogenous administered opioids.

Year of FDA-Approval: 1994 (for opioids); 2006 for alcohol
How Does Naltrexone Work?

It’s an antagonist.

1) It blocks opioid receptors,
2) the reinforcing “reward” effects from dopamine are reduced,
3) drug consumption is thus reduced.
What Does the Research Say?

• Naltrexone is effective for opioid and alcohol addiction:
  – Reduces risk of re-imprisonment
  – Lowers risk of opioid use, with or without psychological support
  – Extended-release naltrexone addresses the issue of patient compliance

SOURCE: Adi et al., 2007.
What Does the Research Say?

• Naltrexone for opiates was well tolerated and associated with a significant abstinence rate.

• In a five-year follow up study, naltrexone with behavioral therapy for opiates saw improvements in drug use, days of depressant use, legal status, and psychiatric factor.
Treatment and Medical Care for People who Inject Drugs and are Infected with HIV
Treatment and Care for Patients who Inject Drugs and are Infected with HIV

• People who inject drugs (PWIDs) have successfully started ART in at least 50 countries; patients can achieve excellent virological outcomes

• Early adherence to ART is associated with long-term virological response, with behavioral support and medication-assisted treatment increasing treatment success in PWIDs

• Cost-effectiveness data show clear benefits of targeting ART to PWIDs in areas with concentrated HIV epidemics (savings ratio as high as 7:1)

SOURCE: Wolfe et al., 2010.
Potential Drug Interactions between Opioid Medications and HIV Medications

• It is important to be aware of clinically significant drug interactions that may occur between opioid medications used to treat heroin addiction and medications used to treat HIV disease because of the high prevalence of HIV in opioid dependent patients.

• Potential interactions may include:
  – Increased medication concentrations/toxicity
  – Cognitive dysfunction/impairment
  – Opioid withdrawal

SOURCES: NY & NJ AETC, 2013; McCance-Katz et al., 2010.
Medical Care of a Person Infected with HIV who Uses Heroin

• Providers need to be mindful of potential medical complications of heroin use, such as the possibility of endocarditis in a patient infected with HIV who uses heroin and presents with a fever

• Providers should regularly screen for tuberculosis with tuberculin skin testing, vaccinate susceptible patients against HBV, and provide counseling for preventing the acquisition and transmission of HCV

• Providers should share information on safer injection and sexual practices, and appropriate referrals to substance use disorder treatment.
Case Study #2: Referring for Services

A 20 year old homeless African American woman is seeking services because she had an unprotected sexual encounter the previous evening. She reports that she always uses condoms, but just “got so into it that she forgot.” During her visit, she is found to be positive on tests for opioids and also for pregnancy.

• What are the critical issues that need to be addressed?
• Should MAT be considered?
• Where could she get services?
Saving Lives
Attributes of Successful Care Coordination

• Understanding **roles for each** participant in the treatment team

• **Ongoing communication** across professions

• **Personal contact** between partners in the system
SAMHSA Opioid Overdose Toolkit

- Educate individuals, families, first responders, prescribing providers, and community members.
- Practical, plain language information about steps to take to prevent opioid overdose and to treat overdoses.
Naloxone Auto-Injector
Naloxone Nasal Spray

HOW TO GIVE NASAL SPRAY NARCAN

1. Pull or pry off yellow caps
2. Pry off red cap
3. Grip clear plastic wings
4. Screw capsule of naloxone into barrel of syringe
5. Insert white cone into nose; give a short, vigorous push on end of capsule to spray naloxone into nose. One half of the capsule into each nostril
6. If no reaction in 2-3 minutes, give the second dose.
Naloxone Availability without a Prescription in California

- Effective April 10, 2015, Naloxone hydrochloride is now available by request or at the suggestion of a pharmacist in California pharmacies.
- Pharmacists will be allowed to furnish naloxone, without a prescription, to reverse opioid overdose.
- Pharmacists dispensing naloxone must:
  - Complete 1 hour of continuing education on the use of naloxone
  - Screen for hypersensitivity
  - Provide the recipient with training in overdose prevention, recognition, response, and administration of naloxone.

Closing Thought:

First, do no harm
Advancing Access to Addiction Medications

• A 2013 ASAM-commissioned report found that Medicaid agencies in only 28 states cover all 3 FDA approved medications; and that private insurers and Medicaid state agencies often impose rigid, scientifically indefensible limitations on medically necessary substance abuse treatment.
Advancing Access to Addiction Medications

- As PEW noted in its coverage of this report:
  
  “You wouldn’t deprive a diabetic of insulin”, and you “wouldn’t hold back a statin from a patient with high cholesterol.”

- While we are working to reduce prescription drug misuse, abuse, and diversion, we must ensure that people with a legitimate medical need for these drugs can afford them and can access them without barriers, impediments, or constraints.
What Did You Learn?
1. The acute effects of heroin include all of the following except:

A. Increased heart rate
B. Sedation
C. Slurred speech
D. Nausea
E. Respiratory depression
2. Recent data show that young drug users are unlikely to shift from prescription opioid use to heroin:

A. True
B. False
Post-Test Question

3. Heroin is the most widely used illicit drug of abuse in the United States:

A. True
B. False
4. Racial/ethnic minority injection drug users are twice as likely to be HIV seropositive than majority group injection drug users from the same country:

A. True

B. False
5. The goal of effective medication-assisted treatment for heroin addiction should be:

A. Short term stabilization and withdrawal
B. A treatment of last resort
C. Ongoing maintenance
D. A and C
E. None of the above
Take Home Points for Clinicians

• **Know** - your local resources (substance use disorders treatment facilities, 12-step meetings, mental health resources, etc.).

• **Remember** - heroin addiction is treatable and every clinic visit is an opportunity for intervention and prevention messages.

• **Encourage** - Patients and staff to discuss the challenges of heroin use and remind them of the importance of continued HIV care and pain management, if applicable.
Recommended Reading and Other Resources

- **TIP 40**: Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction

- **TIP 43**: Medication-Assisted Treatment For Opioid Addiction in Opioid Treatment Programs

- **NIATx**: Getting Started with MAT with Lessons from Advancing Recovery
Recommended Reading and Other Resources

Thank you for your time!

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