

Cannabis and Health

Module 6

Lecture 4: Traditional Treatments for Opioid Use Disorder

Current Treatments for OUDs: Overview

- Medication-Assisted Therapies or MAT (Pharmacological Treatments)
 - Opioid Maintenance—buprenorphine, methadone
 - Naltrexone for Abstinence-Oriented Opioid Rehabilitation
- Psychosocial Treatments
 - Contingency Management
 - Cognitive Behavioral Therapy (CBT)
 - Motivational Interviewing (MI)
- Medical treatments for withdrawal symptoms
 - Supervised detox
- Harm Reduction Approaches
 - Opioid Maintenance

Pharmacological Treatments for OUD

There are 3 FDA–approved medications to treat OUD

- **Methadone**
 - a long-acting (24–30 hours) opioid agonist that can be used as both a detoxification medication to suppress withdrawal and cravings and as a maintenance medication to help reduce nonmedical opioid use
- **Buprenorphine**
 - a partial opioid agonist that, like methadone, can be used during both detoxification and maintenance stages of treatment for opioid addiction
- **Naltrexone**
 - a long-acting opioid antagonist that works by binding to opioid receptors for 24 to 30 hours (oral) or for up to 30 days (extended-release injection called Vivitrol)

Opioid Maintenance

- Methadone
 - Offered only through approved and closely monitored clinics
 - Initially requires almost daily patient participation
 - Dangers include: overdose if the dose is increased too quickly during initial stages of treatment, increased likelihood of cardiac arrhythmias
 - 3194 OD deaths in 2017
 - Usually 3 phases: early stabilization, late stabilization, maintenance and tapering off
 - Maintenance programs decrease mortality by approximately 50% among persons with OUD

Opioid Maintenance

- Buprenorphine
 - Restriction of methadone to specialized clinics in the U.S. contributed to a search for an alternative oral, long-acting opioid
 - Physicians do office-based maintenance w/limited # of patients, must prescribe buprenorphine themselves, must offer counseling or be able to refer patients for counseling, and must agree to participate in DEA inspections
 - Cons: overdoses, especially if it is taken along with depressant drugs, and illicit diversion of drugs, fewer than methadone
 - Pros: mortality during initial phase with buprenorphine is lower than with methadone

Treatment with Naltrexone

- Mu-opioid receptor antagonist that blocks opioid effects and helps maintain abstinence from opioids
- Because naltrexone blocks opioid receptors, the subjective effects of ingested opioids are significantly reduced, if not completely eliminated.
- Individuals taking naltrexone must be completely detoxified of all opioids before taking naltrexone, as the interaction will cause immediate withdrawal
- Can be used outpatient (Vivitrol injection is a long acting version) or inpatient (shorter acting oral naltrexone)
- Most effective when combined with some type of psychosocial treatment such as CBT



Common Psychosocial Treatments for OUD

- Cognitive Behavioral Therapy
 - short-term, focused on relationship between beliefs, thoughts, and feelings, and the behaviors that follow
- Contingency Management
 - uses stimulus control and positive reinforcement to change behavior
- 12-Step Group
 - Generally faith-based, little research on efficacy
- Motivational Interviewing
 - directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence
- Family Therapy
 - seeks to reduce distress and conflict by improving the systems of interactions between *family* members

Psychosocial Treatments

- Psychosocial treatments may be used to increase adherence during detox
- Also helpful for treatment retention and during maintenance
- One shortcoming in the ability to draw conclusions about psychosocial treatments is heterogeneity across studies
 - (e.g., biofeedback, contingency management, 12-step groups, methods group, acceptance and commitment therapy, cognitive-behavioral therapy, etc.)

Combined Treatments: Medication Management + Therapy

- Systematic Review, Dugosh et al., 2016:
 - The most widely studied psychosocial interventions examined in conjunction with medications for opioid addiction were contingency management and cognitive behavioral therapy, majority focused on methadone treatment
 - results generally support efficacy of psychosocial interventions in combination with medications
 - HOWEVER, there is a lack of information about the use of specific medications in combination with specific types of psychosocial interventions
 - Need to develop best practice guidelines!

Harm Reduction Approaches

- Risk Reduction Counseling
 - Preventing transmission of diseases such as HIV
 - Needle safety and disposal
 - Overdose prevention
- Methadone maintenance is considered a harm reduction approach
 - though it can be used to eventually help patients become abstinent
- Heroin Maintenance
 - injectable diacetylmorphine, supervised by a physician
 - one study found it was associated with increased treatment retention and reduced engagement in illegal activities.
 - however, some adverse effects e.g., respiratory depression and seizure

Medical Management of Withdrawal Symptoms

- Pros:
 - can improve patient's health and facilitate participation in rehabilitation program
 - may help patients better consider abstinence because they can think more clearly once acute withdrawal has passed
- Cons:
 - by itself, medically supervised withdrawal is usually not sufficient to produce long-term recovery
 - may increase the risk of overdose among patients who have lost their tolerance to opioids

Tapering Programs

- Very few self-help programs, most are physician monitored
- Veterans Affairs and the Department of Defense
 - Slower tapering schedule (for chronic opioid users): Dosage reductions of 5 to 20 percent of the original dose every 4 weeks.
 - Faster tapering schedule (for acute/postoperative opioid users): Daily decreases of 20 to 50 percent of the initial dose down to a threshold dose. This is followed by a decrease every 2 to 5 days.
- Mayo Clinic
 - For chronic opioid users, decrease of 10 percent of the original dose every 5 to 7 days until 30 percent of the original dose is reached. This is followed by a weekly decrease by 10 percent of the remaining dose.
- CDC
 - For chronic opioid users, decrease of 10 percent of the original dose per week. Some patients who have taken opioids for a long time might find even slower tapers easier.

During the opioid taper the physician may...

- Regularly monitor pulse, blood pressure and temperature
- Request urine or blood samples to check the type and levels of medication
- Ask for your permission to speak with other healthcare providers, pharmacist, or family members to obtain information that may help with the medication taper
- Introduce other pain therapies as needed
- Prescribe other types of medications to help manage withdrawal signs and symptoms such as sleep, appetite, and mood disturbances

Tips to Minimize Withdrawal

- Stay hydrated by drinking plenty of water
- Eat regularly and choose healthy meals
- Stay active with moderate exercise, including walking, stretching, and deep-breathing exercises
- Use relaxation/meditation techniques, which can include breathing exercises, music therapy, guided imagery, meditation, and reading
- Keep a positive outlook and surround yourself with people who can help keep your mood positive
- Do not substitute alcohol for the medication you are tapering down

Treatments for Acute Opioid Overdose

- Naloxone is an opioid antagonist medication designed to rapidly reverse overdose
- There are three FDA-approved formulations
 - Injectable
 - Professional training required
 - Autoinjectable
 - Families or emergency personnel inject quickly into outer thigh
 - Once activated, the device provides verbal instruction to user describing how to deliver the medication, similar to automated defibrillators
 - Prepackaged Nasal Spray (Narcan)
 - prefilled, needle-free device that requires no assembly and is sprayed into one nostril while patients lay on their back

Summary

- Number of different psychosocial approaches (e.g., CBT)
- Medication Assisted Treatment (MAT) – buprenorphine, methadone
- Tapering programs which generally call for 10% dose reduction each week
- Treatment for acute overdose involves quick administration of some form of naloxone