Therapeutic Approaches to Opioid Use Disorder

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The DSM-5

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), no longer uses the terms substance abuse and substance dependence, rather it refers to substance use disorders, which are defined as mild, moderate, or severe to indicate the level of severity, which is determined by the number of diagnostic criteria met by an individual. Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home. According to the DSM-5, a diagnosis of substance use disorder is based on evidence of impaired control, social impairment, risky use, and pharmacological criteria.
What is OUD?

The DSM-5 defines opioid use disorder as a problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two out of 11 criteria within a 12-month period.
DSM-5 Criteria for OUD

- Opioids are often taken in higher quantities than intended.
- Unable to stop or reduce opioid use.
- Significant time is spent in obtaining, using or recovering from the effects of opioids.
- An intense craving and desire for opioids.
DSM-5 Criteria for OUD

- Important social, occupational or recreational activities are given up or reduced because of opioid use.
- Recurrent opioid use in situations in which it is physically hazardous.
Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.
Tolerance, as defined by either of the following:

- need for markedly increased amounts of opioids to achieve intoxication or desired effect
- markedly diminished effect with continued use of the same amount of an opioid
DSM-5 Criteria for OUD

Withdrawal, as manifested by either of the following:

- the characteristic opioid withdrawal syndrome
- the same (or a closely related) substance are taken to relieve or avoid withdrawal symptoms
What are Opioids?

Opioids is a term used for the entire family of opiate drugs, including natural, synthetic and semi-synthetic. These drugs are chemically related and interact with opioid receptors on nerve cells in the body and brain.

OPIOID DRUGS INCLUDE:
- Heroin
- Buprenorphine
- Codeine
- Fentanyl
- Hydrocodone
- Hydromorphone
- Meperidine
- Methadone
- Morphine
- Oxycodone
Names of Opioids

- Fentanyl
- Oxycodone
- Hydrocodone
- Codeine
- Morphine
- Methadone
Opioids:
Best-known narcotic pain medication, found in or derived from opium.

Nearly 2 million Americans age 12 or older either abused or were dependent on opioids in 2014.

1 in 4 people on long-term prescription opioids struggle with addiction, even in a primary care setting.

Common prescription opioid pain relievers include:
- Hydrocodone (Vicodin)
- Oxycodone (OxyContin)
- Oxymorphone (Opana)
- Methadone
- Fentanyl

Sources: Centers for Disease Control and Prevention, Encyclopedia Britannica, Substance Abuse and Mental Health Services Administration.
How Opioids Work?

**HOW OPIOIDS BLOCK PAIN**

**PRESCRIPTION OPIOIDS**
- They influence the release of chemicals from the "brain's internal reward system" that can calm your emotions and give you a sense of pleasure.
- They slow down automatic functions, including breathing and heart rate, which can lower your pain.
- They slow or reduce pain signals before they get to the brain, where you feel them.

**THEY CAN ALSO MAKE YOU:**
- Nauseated.
- Tired & Sleepy.
- Constipated.

**TAKEN OVER TIME:**
- Tolerance: Your body can get used to them, and you need more.
- Withdrawal: You can get very sick if you suddenly stop taking them.
- Misuse: You might take them in a way not prescribed by your doctor.
- Addiction: You might become dependent.

*Sources: National Institute on Drug Abuse, National Institute on Drug Abuse for Teachers, University of Utah Health Care.*
But My Doctor gave it to Me!
It's an American Epidemic...
Opioid Economic Impact

- Nearly 1 in 3 Part D beneficiaries received at least 1 prescription opioid
- 76 Million Number of opioid prescriptions paid for by Part D
- 1 in 10 Part D beneficiaries received opioids for 3 months or more

Source: Opioid Use in Medicare Part D Decreased Slightly in 2017 but Remains Concerning. Learn more: https://www.hhs.gov/opioid/data/year2016
Who is at Risk for OUD?

- Anyone who is exposed to opioids for long-term management of chronic pain is at risk for opioid overdose.
- Individuals who use heroin or misuse prescription pain relievers.
- Receiving rotating opioids medication regimens (risk for incomplete cross-tolerance).
All Across the United States
ALABAMA OPIOID STATS

30,000 Alabama residents 17 and over are dependent upon heroin and prescription painkillers. Information courtesy of the office of the Alabama Attorney General.


282 people died overdosing in Alabama during 2015. Information courtesy of a United States Senate report.

From 2012-2014, 88 people died of drug overdoses in Tuscaloosa County. Information courtesy of the County Health Rankings and Roadmaps.
Who is at Risk for OUD?

- Individuals discharged from emergency medical care following an overdose.
- Need opioid pain reliever, in conjunction with a suspected or confirmed substance use disorder or history of non-medical use of prescription opioids or use of illicit opioids.
Who is at Risk for OUD?

- Individuals completed opioid detoxification or are abstinent for a period of time (presumably have reduced opioid tolerance and high risk of return to opioid use).
- Individuals recently released from incarceration and have a history of opioid use disorder or opioid misuse (presumably have reduced opioid tolerance and high risk of return to opioid use).
Strategies to Prevent Overdose Deaths

Targeted Naloxone Distribution

- Naloxone is an opioid antagonist that can quickly and safely reverse the potentially fatal effects of an opioid overdose.

Targeted Naloxone Distribution

- Targeted distribution programs seek to train and equip individuals who are most likely to encounter or witness an overdose—especially people who use drugs and first responders—with naloxone kits, which they can use in an emergency to save a life.
Strategies to Prevent Overdose Deaths

Medication-Assisted Treatment (MAT)

- MAT is a proven pharmacological treatment for opioid use disorder. The backbone of this treatment is FDA approved medications.
Images of Naloxone
Strategies to Prevent Overdose Deaths

- Agonist drugs, methadone and buprenorphine, activate opioid receptors in the brain, preventing painful opioid withdrawal symptoms without causing euphoria; naltrexone blocks the effects of opioids.

- MAT is effective at reducing use and helping people to lead normal lives.
“Detailing” is a structured educational strategy developed by commercial manufacturers of medical and pharmaceutical technologies to market these products to prescribers and pharmacists.
“Academic detailing” consists of structured visits to healthcare providers by trained professionals who can provide tailored training and technical assistance, helping healthcare providers use best practices.
Strategies to Prevent Overdose Deaths

Eliminating Prior-Authorization Requirements for Medications for Opioid Use Disorder

- Health insurance providers cover the cost of MAT as a standard benefit and all requirements that a physician contact the insurance provider for approval prior to writing the prescription are removed.
Eliminating Prior-Authorization Requirements for Medications for Opioid Use Disorder

Without prior authorization requirements, prescriptions for MAT medications to treat opioid use disorder can be written and filled as soon as a physician deems this treatment necessary, free from artificial delays.
Strategies to Prevent Overdose Deaths

Screening for Fentanyl in Routine Clinical Toxicology Testing

- The standard panel of substances included in routine clinical drug screens (carried out in hospitals, clinics, treatment centers, etc.) should include screening for fentanyl exposure, particularly in jurisdictions where fentanyl is known to be prevalent in the local illicit drug market.
Strategies to Prevent Overdose Deaths

Alabama’s Good Samaritan Law
Strategies to Prevent Overdose Deaths

911 Good Samaritan Laws

Refers to local or state legislation that may provide overdose victims and/or overdose bystanders with limited immunity from drug-related criminal charges and other criminal or judicial consequences that may otherwise result from calling first responders to the scene.
Strategies to Prevent Overdose Deaths

Naloxone Distribution in Treatment Centers and Criminal Justice Settings

- Target individuals who are about to be released from supervision and/or cease treatment to receive overdose response training and naloxone kits prior to their exit from the program or facility.
Strategies to Prevent Overdose Deaths

MAT in Criminal Justice Settings and Upon Release

- MAT should be made available as a standard of care for incarcerated individuals with opioid use disorder.

- Those receiving MAT when they enter a criminal justice setting may continue receiving this treatment, and those who are not on treatment may initiate and continue this form of care while incarcerated and then be linked with appropriate care providers to continue MAT upon release.*
Initiating Buprenorphine-based MAT in Emergency Departments

Patients receiving care in emergency departments who have untreated opioid use disorder are referred to a provider for long-term buprenorphine-based MAT.
Syringe Services Programs

- provide access to clean and sterile equipment used for the preparation and consumption of drugs as well as tools for the prevention and reversal of opioid overdose, such as naloxone training and distribution, fentanyl testing strips, and more.
Clean Syringes
Drug overdose deaths continue to increase in the United States.

- From 1999 to 2016, more than 630,000 people have died from a drug overdose.

- Around 66% of the more than 63,600 drug overdose deaths in 2016 involved an opioid.
Drug overdose deaths continue to increase in the United States.

- In 2016, the number of overdose deaths involving opioids (including prescription opioids and illegal opioids like heroin and illicitly manufactured fentanyl) was 5 times higher than in 1999.

- On average, 115 Americans die every day from an opioid overdose.¹
Opioid Overdose

115 Americans die every day from an opioid overdose (including prescription and illicit opioids.)
Rate of Opioid-Related Overdose Deaths in Alabama

Source: CDC WONDER
Drug Overdose Deaths Continue to Increase in the United States

- From 1999-2016, more than 350,000 people died from an overdose involving any opioid, including prescription and illicit opioids.²

- This rise in opioid overdose deaths can be outlined in three distinct waves.
• **The first wave** began with increased prescribing of opioids in the 1990s\(^3\), with overdose deaths involving *prescription opioids* (natural and semi-synthetic opioids and methadone) increasing since at least 1999.

• **The second wave** began in 2010, with rapid increases in overdose deaths involving *heroin*.

• **The third wave** began in 2013, with significant increases in overdose deaths involving synthetic opioids – particularly those involving illicitly-manufactured *fentanyl* (IMF). The IMF market continues to change, and IMF can be found in combination with heroin, counterfeit pills, and cocaine.\(^2\),\(^4\)
3 Waves of the Rise in Opioid Overdose Deaths

Wave 1: Rise in Prescription Opioid Overdose Deaths
Wave 2: Rise in Heroin Overdose Deaths
Wave 3: Rise in Synthetic Opioid Overdose Deaths

Commonly Prescribed Opioids
Natural & Semi Synthetic Opioids and Methadone
Other Synthetic Opioids
  e.g. Tramadol and Fentanyl, prescribed or illicitly manufactured

Heroin

FENTANYL: Overdoses On The Rise

Fentanyl is a synthetic opioid approved for treating severe pain, such as advanced cancer pain. Illicitly manufactured fentanyl is the main driver of recent increases in synthetic opioid deaths.

SYNTHETIC OPIOID DEATHS ACROSS THE U.S.

- 50-100x more potent than morphine
- 73% increase from 2014 to 2015
- 264% increase from 2013 to 2015

Ohio Drug Submissions Testing Positive for Illicitly Manufactured Fentanyl

- 196% increase from 2014 to 2015

Illicitly Manufactured Fentanyl

Although prescription rates have fallen, overdoses associated with fentanyl have risen dramatically, contributing to a sharp spike in synthetic opioid deaths.

Often mixed with heroin or cocaine with or without user knowledge.
1. *Do* attend to the person’s breathing and cardiovascular support.

2. *Do* administer Naloxone and utilize a second dose, if no response to the first dose.

3. *Do* put the person in a “recovery position” on the side.

4. *Do* stay with the person and keep the person warm.
1. Don’t slap or forcefully try to stimulate the person; it will only cause further injury. If you cannot wake the person by shouting, rubbing your knuckles on the sternum, light pinching, the person may be unconscious.

2. Don’t put the person into a cold bath or shower. This increases the risk of falling, drowning, or going into shock.
First Responders…
Do’s & Don'ts

3. **Don't** inject the person with any substance (e.g., saltwater, milk, stimulants). The only safe and appropriate treatment is Naloxone.

4. **Don't** try to make the person vomit drugs that may have been swallowed. Choking or inhaling vomit into the lungs can cause a fatal injury.
First Responders...

Call 911

- If an overdose is suspected. *Even if the patient wakes up or seems better after one or two doses of naloxone, emergency medical assistance is still necessary.*

- *A medical professional should evaluate anyone who has experienced an overdose as soon as possible.*
First Responders
Call 911 continued...

- Overdose symptoms may not fully improve or may quickly return after initial treatment with naloxone. Other medical complications also are possible. Note that an incapacitated individual’s symptoms may be unrelated to opioids.
First Responders...
Assess the scene of the incident

- Do not enter any area that appears unsafe for any reason. If you see drug powders or residues, do not risk exposure. Wait for professional emergency responders. Avoid contact with drug containers, needles and other paraphernalia.
First Responders...

- Call trained staff to the scene and put on gloves for personal protection.
First Responders...

Recognize and evaluate signs and symptoms

Try to wake up the person by speaking loudly or rubbing the breastbone with knuckles. A person experiencing opioid overdose often shows the following signs:

- Unconsciousness, or inability to wake up
- Limp body
- Falling asleep, extreme drowsiness
First Responders...
Recognize and evaluate signs and symptoms

- Slow, shallow, irregular or no breathing.
- Pale, blue, cold and/or clammy skin.
- Choking, snoring or gurgling sounds.
- Slow or no heart beat.
- Very small or “pinpoint” pupils.
If you are using Heroin, it could be stranger than you think.

Narcan (naloxone HCl) Nasal Spray 4 mg

Use Narcan Nasal Spray for known or suspected opioid overdose in adults and children.

Important: For use in the nose only. Do not remove or bend the Narcan Nasal Spray until ready to use.

This box contains two (2) 4-mg doses of naloxone HCl in 0.1 mL of nasal spray.

Two Pack

Check product expiration date before use.
First Responders...

Administer Naloxone

- Check for a medical alert tag to see if the person is allergic to naloxone.
- Administer naloxone if no known allergy exists. Follow all manufacturer’s instructions for safe use. It may take 5 minutes or more for the signs of overdose to reverse.
- Administer a second dose of naloxone if the person is still unresponsive after 2-3 minutes and professional emergency responders have not arrived.
- Naloxone effects are temporary. Immediate medical attention is necessary. Calling 911 is always the first course of action [BC 2017]. A person with an overdose who is revived by naloxone can become unconscious or stop breathing again.
Administer a second dose of naloxone if the person is still unresponsive after 2-3 minutes and professional emergency responders have not arrived.

Naloxone effects are temporary. Immediate medical attention is necessary. Calling 911 is always the first course of action [BC 2017]. A person with an overdose who is revived by naloxone can become unconscious or stop breathing again.
First Responders...
Start other first aid interventions if trained to do so

Position the person on his/her side and keep the airway open. Do not delay other interventions, such as rescue breathing or CPR, while waiting for naloxone to work. Monitor the person’s condition while waiting for emergency assistance. If breathing stops at any time, begin rescue breathing or CPR, if trained to do so.
Naloxone temporarily reverses the effects of the opioid, including sedation. The person given naloxone may experience opioid withdrawal, which can cause agitation and erratic behavior that may lead to injury to self or others.
Withdrawal symptoms can also include nausea, vomiting, convulsions, tremors, increased blood pressure, and other heart and respiratory symptoms.
First Responders...

Follow-up activities after an overdose

- Establish follow-up services to care for the worker who experienced an overdose. Plan for referral to treatment programs, medical professionals, employee assistance professionals, and associated resources.
First Responders...
Follow-up activities after an overdose

- Consider any follow-up needs for responders and bystanders, including employee assistance or mental health services.

- Provide appropriate support and referrals to coworkers and family members of the worker who experienced an overdose.
Recovery from Opioid Overdose
Opioid Treatment Recovery Plan

- Break the cycle of guilt and shame. Do your recovery with other people who are going through the same thing. This is the benefit of going to 12-step meetings such as Narcotics Anonymous NA or Alcoholics Anonymous AA.
- Ask for help. Have a strong support system.
- Be honest, and practice sharing how you feel.
Recovery from Opioid Overdose
Opioid Treatment Recovery Plan

- Avoid high risk situations.
- Learn *relapse prevention* strategies.
- Do your recovery one day at a time.
**Recovery from Opioid Overdose Resource Information Sheet**

**NALOXONE**

- Naloxone works within a few minutes
- Naloxone is on the WHO's List of Essential Medicines
- Naloxone is safe and non-abusible

The number of organizations that distribute naloxone has more than doubled in the past four years.

83% of the majority of successful overdose response reversals were done by drug users and their loved ones.

81% of heroin was involved with most of the naloxone overdose reversals.

"Naloxone is non-addictive, and expanding training on how to administer the drug can help basic emergency medical staff reverse an opioid overdose and save more lives."

- Director of CDC
Recovery Resource Information

Suggested Resources for Family, Friends & Loved Ones of Opioid Users

- Entities: Use this slide to list information about local resources for things such as:
  - Self-care
  - Support groups
  - Grief/trauma counseling
  - Advocacy groups for involvement
  - Treatment & recovery services.

My Opiate Overdose Experience

Narcan Saved My Life
Recovery from Opioid Overdose
Creating a Network of Support

Overdose survivors can access a variety of community-based organizations and institutions, such as:

- Health care and behavioral health providers.
- Peer to peer recovery support groups.
- Faith-based organizations.
- Educational Institutions and Government Agencies
Thank you!
References
References

References
Breathing is slow or has stopped