Identifying, Assessing, and Treating Opioid Misuse

A Training for Florida's Health Professions Students





Sponsored by Florida Alliance for Healthy Communities, Inc. and the State of Florida, Department of Children and Families

Daniel J. Dunleavy, MSW, PhD Candidate

College of Social Work, Florida State University

djd09e@fsu.edu

Objectives

- 1. Describe the trends in opioid misuse and deaths from overdoses over the last 20 years in the U.S. and Florida
- 2. Identify how and why opioids are used and their effects on an individual's brain and body
- 3. Describe risk factors, signs, and symptoms for opioid misuse
- 4. Identify screening and assessment for opioid misuse
- 5. Identify co-occurring disorders that impact the assessment and treatment of persons with opioid abuse
- 6. List evidence-based options for treating opioid misuse
- 7. Identify resources and referrals for opioid misuse

To Start . . . What are Opioids?

Class of drugs to reduce _____.

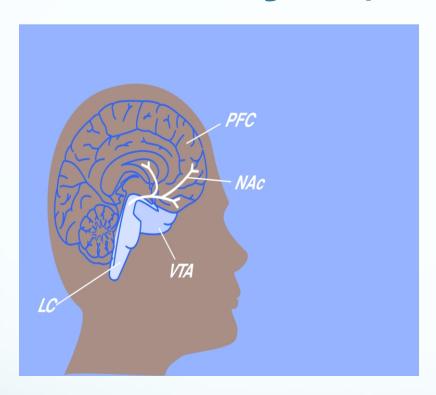
Naturally found in the opium poppy plant. Drugs can be made from the plant directly or in a lab using the same chemical structure.

Includes **prescription opioids** such as oxycodone (OxyContin), hydrocodone (Vicodine), morphine and methadone; **Fentanyl**, a powerful **synthetic opioid**, which is made both legally and illegally; and **Heroin**, an illegal opioid.

The Basics of Opioid Use and Misuse

- All opioids chemically related and interactive with opioid receptors on nerve cells in the body and brain
- Opioid pain relievers generally safe when taken for a short time and as prescribed
- Opioids to treat moderate-to-severe pain often prescribed after surgery or injury, or for health conditions such as cancer. More use in recent years for chronic, non-cancer pain, such as back pain
- Euphoria plus pain relief is combination that can lead to misuse as well as to addiction, overdose incidents, and deaths
- Misuse of prescription opioids involves taking the medicine in a way other than prescribed, taking someone else's prescription, or taking the medicine to get high. Misused opioids can be swallowed, injected, or snorted.

Why Opioids are So Addictive



LC: Locus Ceruleus

VTA: Ventral Tegmental Area

Nac: Nucleus Accumbens

PFC: Prefrontal Cortex

The Mesolimbic Reward System

- Opioids stimulate specialized proteins called mu opioid receptors in the brain
- Cells in the VTA produce and release dopamine resulting in feelings of pleasure
- Feedback from the PFC to the VTA helps us overcome drives to obtain pleasure through actions that may be unsafe or unwise, but this feedback appears to be compromised in individuals addicted to drugs
- The LC plays an important role in drug dependence and withdrawal symptoms as opioids impact the LC's normal production and release of noradrenaline.

Opioid Effects on the Body

- Slowed breathing
- Nausea and/or vomiting
- Dry mouth
- Sleepiness and dizziness
- Low testosterone/sex drive, energy and strength
- Constipation
- Itching and sweating
- Depression
- Confusion

Tolerance

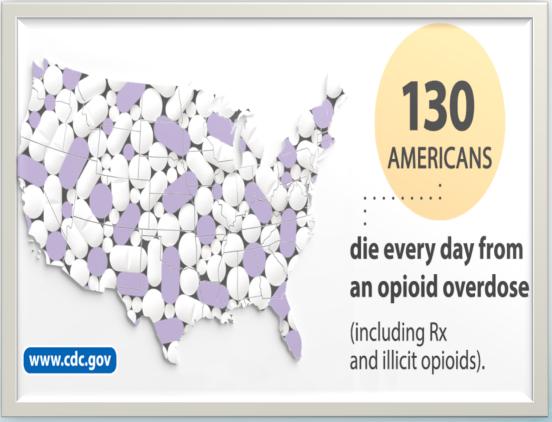
- Physical dependence: symptoms of withdrawal when medication is stopped
- Increased sensitivity to pain

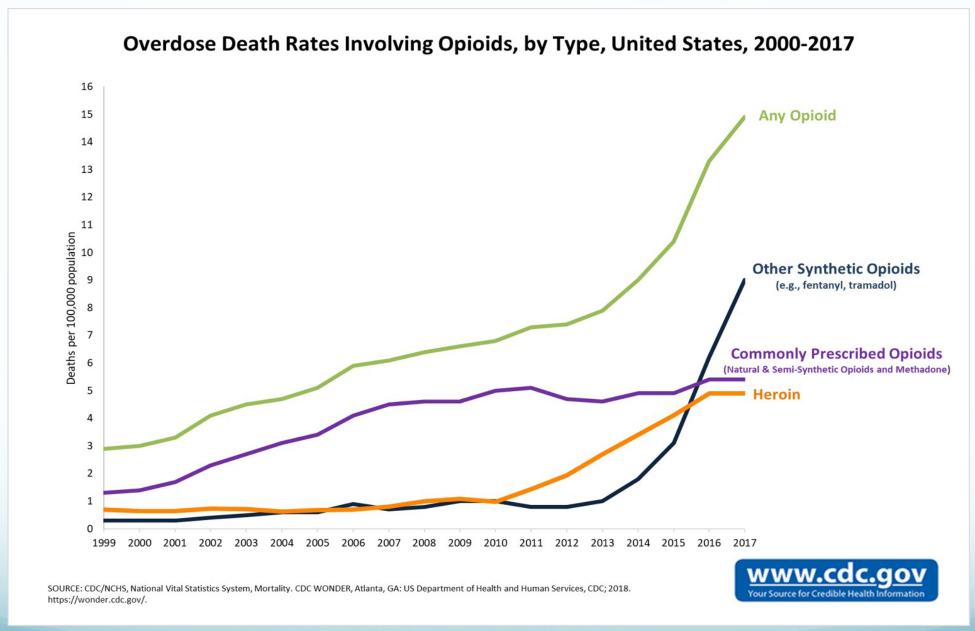
Risks Greater with:

- History of drug misuse, substance abuse disorder or overdose
- Mental health conditions such as anxiety or depression
- Older age
- Pregnancy

Staggering Statistics

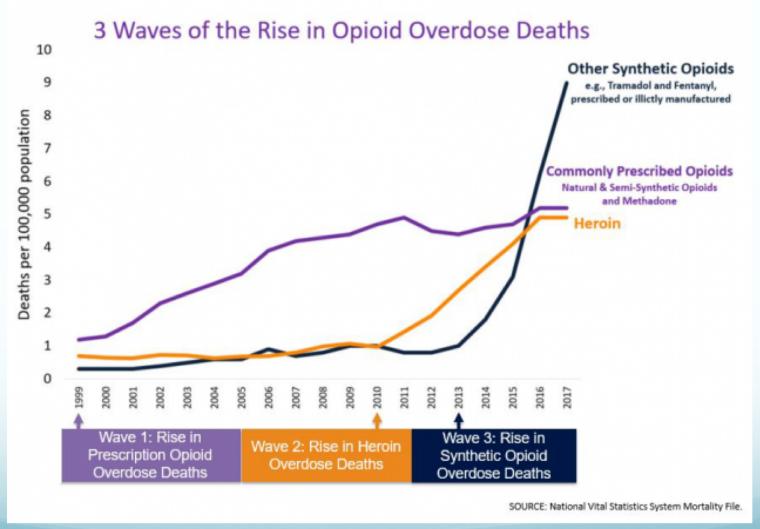






CDC (2018, December 19). *Opioid overdose: Opioid data analysis and resources.* Retrieved from https://www.cdc.gov/drugoverdose/data/analysis.html

Opioid Overdose Deaths

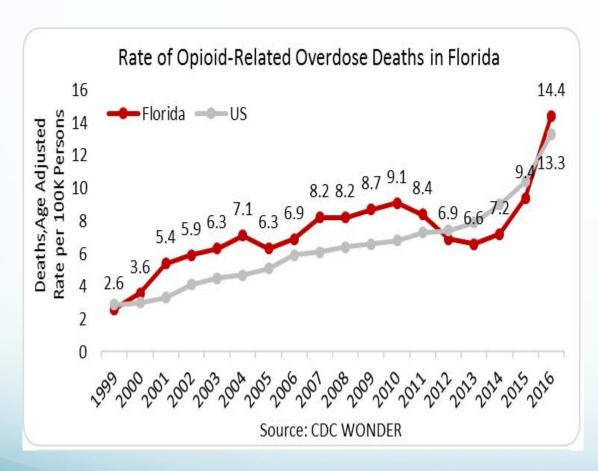


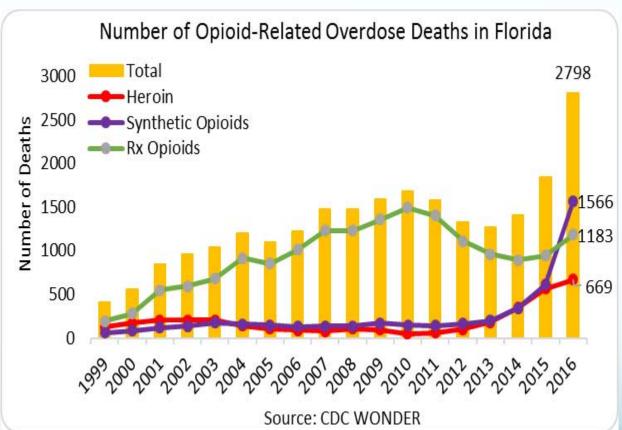
CDC (2018, December 19). *Opioid overdose: Understanding the epidemic.* Retrieved from

Why are Synthetic Opioids So Dangerous?

- For 2017, the largest increase in opioid deaths involved synthetic opioids other than methadone, which includes illicitly manufactured fentanyl (IMF). Synthetic opioids were involved in 59.8% of all opioid-involved overdose deaths with the rate increased by 45.2% from 2016 to 2017 with increases across all demographic categories. The highest death rate was in males aged 25–44 years (27.0 per 100,000), and the largest relative increases occurred among blacks and American Indian/Alaska Natives.
- Opioid receptors are in the areas of the brain that control breathing rate.
 - High doses can cause breathing to stop completely, which can lead to death.
 - High potency greatly increases risk of overdose, especially if a person who uses drugs is unaware that a powder or pill contains fentanyl.
 - Fentanyl sold on the street can be mixed with heroin or cocaine; markedly amplifies its potency and potential dangers.

Rates and Numbers in Florida 1999-2016





Opioid Crisis in Florida

- In 2016, there were <u>2,798 opioid-related overdose deaths</u> in Florida—a rate of 14.4 deaths per 100,000 persons—compared to the national rate of 13.3 deaths per 100,000 persons.
- Florida has experienced a dramatic increase in the number of opioid overdose deaths, particularly those related to synthetic opioids. Compared to 200 deaths in 2013, the number of synthetic opioid-related deaths in 2016 rose to 1,566.
- Florida had history of weak regulations, leading to "pill mills" and high prescription rates for opioids, but state laws have been passed to decrease these practices.

Source: NIDA. (2018, February). Florida opioid summary. Retrieved from https://www.drugabuse.gov/drugs-abuse/opioid-summaries-by-state/florida-opioid-summary

Prescription Drug Monitoring Program (PDMP)

E-FORCSE® (Electronic-Florida Online Reporting of Controlled Substance Evaluation Program):

- Created by the 2009 Florida Legislature to encourage safer prescribing of controlled substances and to reduce drug abuse and diversion within the state of Florida. Database became operational in 2011.
- Requires dispensers of controlled substances to report all transactions within seven days. Permits licensed health care practitioners including physicians, dentists, osteopaths, podiatrists, pharmacists, physician assistants, ARNPs, and optometrists to register and use the database in treatment planning prior to prescribing a controlled substance.

Florida Board of Medicine. (2014, November 14). Prescription drug monitoring program. Retrieved from https://flboardofmedicine.gov/latest-news/prescription-drug-monitoring-program-2/

Identifying Opioid Misusers

Risk Factors for Opioid Misuse

General Signs and Symptoms of Misuse

What makes some people more vulnerable to misuse?



CDC (2017, August 29). *Opioid overdose: Prescription opioids.* Retrieved from https://www.cdc.gov/drugoverdose/opioids/prescribed.html

General Signs and Symptoms of Misuse

- Noticeable elation/euphoria
- Mood swings
- Irritability
- Depression/anxiety
- Slowed breathing
- Sedation/drowsiness
- Confusion
- Constipation

- Constricted pupils
- Intermittent nodding off
- Poor decision-making
- Social withdrawal
- Tolerance: increased dose required for pain relief
- Worsening or increased sensitivity to pain with higher doses (hyperalgesia)

Drugabuse.com (2018, November 5). *Opiate abuse.* Retrieved from https://drugabuse.com/opiat es/

Social and Behavioral Indicators of Opioid Misuse

Often, people who are struggling with opioid use disorder will start to behave differently, such as:

- Withdrawal from social and recreational activities
- Changes in behavior or mood/Avoiding friends and family
- Financial problems
- Making bad or reckless decisions
- Missing school or work due to use (Suspension from school or job loss)

Changes in Drug-related Behaviors in Patients: Red Flags

- Stealing drugs from others
- Obtaining prescriptions from non-medical or other medical sources
- Concurrent use of alcohol or illicit drugs
- Repeated dose escalation or non-compliance
- Aggressively complaining of the need for more drugs
- Requesting specific drugs, dosages, or routes
- Using drugs to treat symptoms other than those for which they

 Were prescribed

 Source: Barbor, M. Using a Team Approach to Tackle Opioid Abuse in Patients with Cancer.

 Oncology Practice Management. August 2018, Vol.8, No.8

Screening and Assessing for Opioid Misuse

Assessment Types

Three types of assessment instruments have been designed to detect risks for patients at different points related to their use of opioids:

- Opioid misuse prior to initiating long-term opioid therapy
- Signs of misuse in patients currently using opioids
- Mental health and non-opioid general substance abuse screening as additional factors in treatment

Screening for Risk of Opioid Misuse Prior to Initiating Long-Term Opioid Therapy

Recommended instruments for assessing the risk of opioid misuse before initiating long-term opioid therapy:

- Opioid Risk Tool (ORT)
- Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)
- Screening Instrument for Substance Abuse Potential (SISAP)
- Diagnosis, Intractability, Risk, and Efficacy (DIRE) score.

OPIOID RISK TOOL

- Brief, self-report screening tool
- Designed for use with adult patients in primary care settings
- Used to assess risk for opioid abuse among individuals prescribed opioids for treatment of chronic pain
- Patients categorized as high-risk are at increased likelihood of future abusive drug-related behavior
- Can be administered and scored in less than 1 minute.
- Validated in both male and female patients, but not in non-pain populations.

Webster L.R., Webster R. Predicting aberrant behaviors in Opioid-treatec patients: preliminary validation of the Opioid risk too. Pain Med. 2005; 6 (6): 432. Retrieved from

https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf

Opioid Risk Tool (ORT)

Mark each box that applies:		Female Male			
1.	Family history of substance abuse				
	Alcohol		1		3
	Illegal drugs		2		3
	Prescription drugs		4		4
2.	Personal history of substance abuse				
	Alcohol		3		3
	Illegal drugs		4		4
	Prescription drugs		5		5
3.	Age (mark box if between 16-45 years)		1		1
4_	History of preadolescent sexual abuse		3		0
5.	Psychological disease				
	ADO, OCD, bipolar, schizophrenia		2		2
	Depression		1		1
	Scoring totals:	-	_	<u> </u>	

Administration

- On initial visit
- Prior to opioid therapy

Scoring

- 0-3: low risk (6%)
- 4-7: moderate risk (28%)
- ≥ 8: high risk (> 90%)

Strategies for Preventing Misuse

PROVIDERS:

- Use non-opioid therapies whenever possible
- Discuss benefits and risks with patients and evaluate risk of harm or misuse
- Set criteria for stopping or continuing opioids
- Assess baseline pain and function
- Schedule initial reassessment within 1-4 weeks
- Prescribe short-acting opioids using lowest effective dose

PATIENTS:

- Never take opioids in greater amounts or more often than prescribed
- Talk with your provider about other ways to help manage pain. Know the side effects of opioids/discuss concerns.
- Avoid alcohol while taking prescription opioids, as well as benzodiazepines, muscle relaxants, hypnotics, and other prescription opioids (unless advised)
- Help prevent misuse and abuse by <u>never</u> selling or sharing prescription opioids or using another person's prescription opioids. Store prescription opioids in a secure place and out of others. Safely dispose of unused prescription opioids.

Monitoring for Signs of Opioid Misuse in Patients Receiving Long-Term Opioid Therapy (>90 days)

- Prescription Drug Use Questionnaire-patient version (PDUQ-p)
- Opioid Misuse Measure (COMM)
- Patient Medication Questionnaire (PMQ)
- Assessment and Documentation Tool (PADT)
- Addiction Behavior Checklist (ABC)

Mental Health Screening

Mental health screening is another assessment to consider in treatment planning based on the common co-morbidity of opioid use disorders and mental illness.

Examples of Screening Tools:

- Patient Health Questionnaire [PHQ-9]
- Generalized Anxiety Disorder [GAD-7]

Co-occurring Disorders that Impact the Assessment and Treatment of Opioid Use Disorder

Common Comorbidity Between Substance Abuse Disorders and Mental Illness: Why?

Common Risk Factors can contribute to both: genetic vulnerabilities, epigenetic influences, brain region involvement, environmental influences, stress, and trauma and adverse childhood experiences

Mental illnesses can contribute to drug use and addiction

Substance use and addiction can contribute to the development of mental illness

Co-occurring Substance Use Disorders and Physical Comorbidities

Chronic Pain

Tobacco Use

Mental Illness

Treatment Adherence Infectious Disease Transmission

Impact of Co-morbidities on Treatment



Treating Opioid Misuse

Emergency Treatment to Reverse Opioid Overdose

Medication-Assisted Treatment (MAT)

Combined Treatment Options

You Can Stop an Overdose

Recognize an Overdose:

Unresponsive to sternal rub

Unresponsive to shouting their name

Slow or shallow breathing, or not breathing at all

Choking sounds or snore-like gurgling noise

Blue or gray skins and lips

5 Steps to SAVE A LIFE:

- 1. Try to wake the person up
- 2. Call 911
- 3. Give naloxone
- 4. Check for breathing
- 5. Stay with the person until help arrives

Isavefl.com (n.d.) Save a life poster. Retrieved from https://isavefl.com/index.shtml#resources

Naloxone: Opioid Overdose Reversal

- Can be given by intranasal spray, intramuscular, subcutaneous (under the skin) or intravenous injection.
- Narcan (intranasal spray) and Evzio Auto-injector are options
- Opioid receptor antagonist that reverses opioid overdose and restores normal respiration.

Helpful Links to Florida Resources on https://isavefl.com/

/ Save Florida GET HELP RESOURCES

GET HELP

Florida has a number of resources for those struggling with substance abuse disorders.



Find Treatment

Local substance use disorder treatment locator. Includes tips on finding quality treatment.



Naloxone Locator

Find out how to access naloxone in your area.



Recognize An Overdose

Recognize the warning signs of an overdose. 5 simple tests



Save A Life

Simple steps to save a life.

Includes information on using naloxone to reverse an overdose.



QUICK START GUIDE

Opioid Overdose Response Instructions

Use NARCAN Nasal Spray (naloxone hydrochloride) for known or suspected opioid overdose in adults and children.

Important: For use in the nose only.

Do not remove or test the NARCAN Nasal Spray until ready to use.

Identify Opioid Overdose and Check for Response

ASK person if he or she is okay and shout name.

Shake shoulders and firmly rub the middle of their chest.

Check for signs of opioid overdose:

- · Will not wake up or respond to your voice or touch
- · Breathing is very slow, irregular, or has stopped
- . Center part of their eye is very small, sometimes called "pinpoint pupils"

Lay the person on their back to receive a dose of NARCAN Nasal Spray.



Give NARCAN Nasal Spray

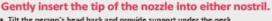
Remove NARCAN Nasal Spray from the box. Peel back the tab with the circle to open the NARCAN Nasal Spray.











Hold the NARCAN nasal spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.

 Tilt the person's head back and provide support under the neck with your hand. Gently insert the tip of the nozzle into one nostril, until your fingers on either side of the nozzle are against the bottom of the person's nose.





Press the plunger firmly to give the dose of NARCAN Nasal Spray.

Remove the NARCAN Nasal Spray from the nostril after giving the dose.



Get emergency medical help right away.

Move the person on their side (recovery position) after giving NARCAN Nasal Spray.

Watch the person closely.





Repeat Step 2 using a new NARCAN Nasal Spray to give another dose in the other nostril. If additional NARCAN

Nasal Sprays are available, repeat step 2 every 2 to 3 minutes until the person responds or emergency medical help is received.

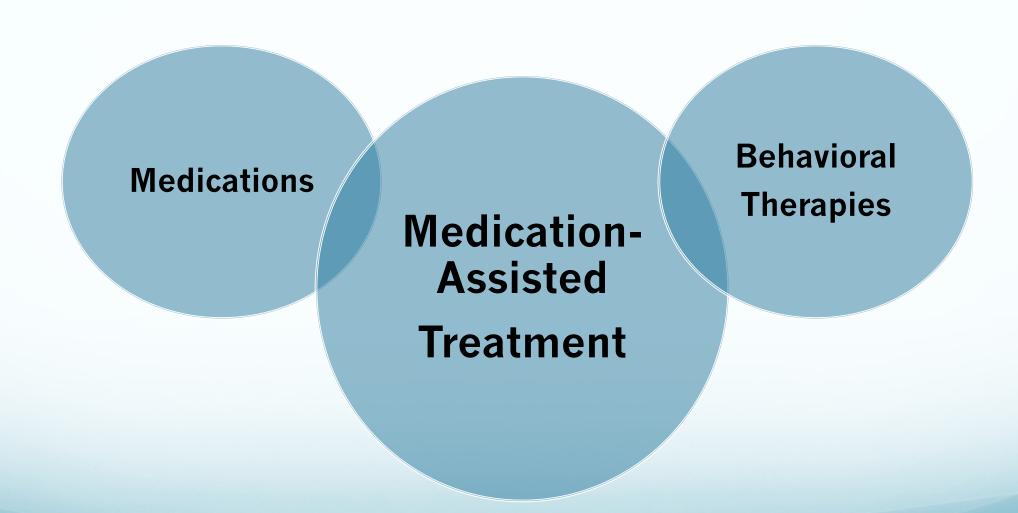
For more informationalizate NARCAN Name Spray, go to wanternamental analograpy.com, or call 1-844-4MARCAN (1-844-461-7228).

© 2015 ADAPT Pharma, Inc. NARCAM* is a registered trademark/Scensed to ADAPT Pharma Operations Limited. Ad 809.01



ADAPT Pharma. (2015). Narcan (naxalone HCI) nasal spray quick start guide: Opioid overdose response instructions. Retrieved from https://www.montcopa.org/DocumentCenter/View/12179/NarcanQui ckStartGuide?bidId

Whole Patient Approach to Treatment



Checklist for Prescribing Medications

- ✓ Assess the need for treatment including severity of opioid misuse, presence of underlying or co-occurring conditions, effect of misuse on physical and psychological functioning, as well as outcomes of any previous treatments
- ✓ Educate the patient by providing information on how the medication works and the associated risks and benefits
- ✓ Evaluate the need for medically managed withdrawal from opioids, which is necessary for patients wanting to use Naltrexone
- ✓ Address co-occurring disorders to plan an integrated treatment approach to meet substance abuse, medical, mental health and social needs of patient
- ✓ Integrate pharmacologic and nonpharmacologic therapies to build a comprehensive individualized treatment plan including counseling, other psychological therapies and social support
- **✓** Refer patients for higher levels (specialized or more intensive) care if necessary

Source: Substance Abuse and Mental Health Services Administration. (2016, March). *Medication-Assisted Treatment of opioid use disorder pocket guide.* (Publication No. SMA16-4892PG). Retrieved from https://store.samhsa.gov/product/Medication-Assisted-Treatment-of-Opioid-Use-Disorder-Pocket-Guide/SMA16-4892PG

Medications for Treatment of Opioid Misuse

Methadone

- Long-acting synthetic opioid agonist (binds to opioid receptors), which provides pain relief and decreases drug cravings
- Taken orally on a daily basis
- Has been used during pregnancy to promote healthy outcomes for more than 40 years but neonatal abstinence syndrome may still occur; mothers maintained on methadone can breastfeed if not HIV positive, abusing substances, or have other diseases/infections

Buprenorphine

- Synthetic opioid medication that acts as a partial agonist at opioid receptors
- Does not produce the euphoria and sedation caused by opioids but is able to reduce or eliminate withdrawal symptoms
- Taken sublingually

Naltrexone

- Synthetic opioid antagonist, which blocks opioids from binding to their receptors and prevents euphoric and other effects
- Helps prevent people who have been addicted to opioids from taking them again
- Usually prescribed in outpatient medical settings, but treatment should begin after medical detoxification to prevent withdrawal symptoms

Opioid Withdrawal

- Opioid withdrawal is one of the most powerful factors driving opioid dependence and addictive behaviors. Withdrawal happens with a sudden decrease or stop in opioid use.
- Withdrawal signs and symptoms may start 6 to 16 hours after stopping opioids and usually last 7 to 10 days, but can continue for months.

Overwhelming opioid craving Anxiety, irritability, depression Runny nose or watery eyes Sweating or shaking
Yawning

Muscle aches or cramps

Trouble sleeping or being tired during the day Nausea, vomiting or diarrhea

Chills or goosebumps

In-Patient Treatment

- Long-term
 - Therapeutic community/24 hours a Day
 - 6-12 months
 - Highly structured
 - Comprehensive services
- Short-term
 - Brief treatment: 3-6 weeks with outpatient and aftercare services
 - Modified 12-steps

Outpatient Treatment Programs

- Vary in types and intensity of services
- Cost less than residential or inpatient treatment
- More suitable for people with jobs and/or extensive social supports
- Intensive day treatment comparable to residential programs in services and effectiveness if suitable to the patient's characteristics and needs
- Group counseling a major of many outpatient programs
- Some programs designed to address other co-occurring physical and mental health problems

NIDA. (2018, January 17). Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition). Retrieved from https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition

Behavioral Therapies for Opioid Misuse

- Behavioral therapies are the most commonly used forms of drug abuse treatments. Therapies include individual, family, and group counseling.
- No single treatment is appropriate for everyone. Matching treatment setting, interventions, and services to a person's particular problems and needs is critical to success.
- Remaining in treatment for an adequate period of time is critical.
- Effective treatment attends to multiple needs of the individual.
- These are among the 13 principles of effective treatment for drug addiction.

Behavioral Therapy Examples

- Cognitive-behavioral therapy (CBT)
 - Recognize and stop negative patterns of thinking and behavior
 - Teaches you coping skills, how to manage stress
 - Change the thoughts maladaptive thought patterns
- Motivational incentives (MI)
 - Ambiguity/motivation to stick with your treatment plan/goals.
- Contingency management
 - Incentives for positive behaviors
- Dialectical Behavior Therapy (DBT)
 - Reduce self-harm behaviors including suicidal attempts, thoughts or urges, cutting and drug use

NIDA. (2018, February 27). Common Comorbidities with Substance Use Disorders. Retrieved from https://www.drugabuse.gov/publications/research-reports/common-comorbidities-substance-use-disorders

Takeaways as a Health Professions Student

Consider:

- Your role in identifying, assessing, and treating persons with opioid misuse
- How you can save lives in preventing deaths from opioid overdoses
- Resources to share with your patients, friends and families

Resources

- SAMHSA TIP 63 Medications for Opioid Use Disorder Treatment Use Disorder Treatment Improvement Protocol for Health Care and Addiction Professionals https://store.samhsa.gov/system/files/sma18-5063fulldoc.pdf
- SAMHSA Opioid Overdose Preverntion Toolkit (also available in Spanish)
 Updated in June, the SAMHSA Opioid Overdose Prevention Toolkit offers
 information and facts from literature and links to resources to prevent opioidrelated overdoses and deaths. Because interdisciplinary collaboration is
 critical to success, SAMHSA offers the Toolkit as an educational resource for
 community members, first responders, prescribers, patients, and families.
 https://www.samhsa.gov/capt/tools-learning-resources/opioid-overdose-prevention-toolkit

Resources (continued)

- Clinical Guidance for Treating Pregnant Women This Clinical Guide provides comprehensive, national guidance for optimal management of pregnant and parenting women with opioid use disorder and their infants. https://store.samhsa.gov/system/files/sma18-5054.pdf
- RX Pain Medications: Know the Options, Get the Facts SAMHSA has just published The Rx Pain Medications, a series of 13 fact sheets designed to increase awareness of the risks associated with prescription opioid use and misuse, as well as to educate patients who are prescribed opioids for pain about the risks and to provide resources on methods for alternative pain management. https://store.samhsa.gov/product/Rx-Pain-Medications-Know-the-Options-Get-the-Facts-/sma17-5053-11

Resources (continued)

• DCF's Overdose Prevention Program includes Public Education New collateral print material (below) is incorporated into the Florida Department of Children and Families Overdose Prevention Program educating the public about helping people at risk of experiencing an overdose.

Examples:

Stop an Overdose Get Naloxone Save a Life https://cdn.ymaws.com/www.fadaa.org/resource/resmgr/images/resource_center/iSave_Cling.pdf

I Saved My Friend's Life Get Naloxone Stop an Overdose https://cdn.ymaws.com/www.fadaa.org/resource/resmgr/images/resource_center/iSave_GasPoster.pdf

Stop an Overdose Get Naloxone Save a Life (with additional information and steps to take) https://cdn.ymaws.com/www.fadaa.org/resource/resmgr/images/resource_center/iSave_GasTopper.pdf

Resources (Continued)

DCF: Substance Abuse and Mental Health Managing Entities: http://www.dcf.state.fl.us/service-programs/samh/managing-entities/

- Big Bend Community Based Care: bigbendcbc.org
 - Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Madison, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, and Washington counties
- Broward Behavioral Health Coalition: bbhcflorida.org
 - Broward county
- Central Florida Behavioral Health Network: cfbhn.org
 - Charlotte, Collier, DeSoto, Glades, Hardee, Highlands, Hendry, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk and Sarasota counties
- Central Florida Cares Health System: centralfloridacares.org
 - Brevard, Orange, Osceola and Seminole counties

Resources (Continued)

DCF: Substance Abuse and Mental Health Managing Entities (Continued)

- Lutheran Services Florida: Isfnet.org
 - Alachua, Baker, Bradford, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Lake, Lafayette, Levy, Marion, Nassau, Putnam, St. Johns, Sumter, Suwannee, Union and Volusia counties
- South Florida Behavioral Health Network, Inc.: sfbhn.org
 - Miami-Dade and Monroe counties
- Southeast Florida Behavioral Health Network: sefbhn.org
 - Indian River, Martin, Okeechobee, Palm Beach and St. Lucie counties

Resources (Continued)

- National Council for Behavioral Health (2016). Medication-Assisted
 Treatment (MAT): Maintenance, Treatment, and Outcomes. Retrieved from
 https://www.thenationalcouncil.org/wp-content/uploads/2016/10/FINAL-MAT-PowerPoint.pptx.
- National Institute on Drug Abuse (2018). Drugs, Brains, and Behavior: The Science of Addiction. Retrieved from https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/soa.pdf.
- National Institute on Drug Abuse (NIDA) Principles of Drug Addiction
 Treatment: A Research-Based Guide (Third Edition, January 2018)
 https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/675-principles-of-drug-addiction-treatment-a-research-based-guide-third-edition.pdf

ADAPT Pharma. (2015). Narcan (naxalone HCl) nasal spray quick start guide: Opioid overdose response instructions. Retrieved from https://www.montcopa.org/DocumentCenter/View/12179/NarcanQuickStartGuide?bidld

Barbor, M. Using a Team Approach to Tackle Opioid Abuse in Patients with Cancer. Oncology Practice Management. August 2018, Vol.8, No.8

Centers for Disease Control and Prevention (CDC). 2018 Annual Surveillance Report of Drug-Related Risks and Outcomes — United States. Surveillance Special Report. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Published August 31, 2018. Accessed [2019, March 9] from https://www.cdc.gov/ drugoverdose/pdf/pubs/2018- cdc-drug-surveillance-report.pdf

CDC (2018, December 19). *Opioid overdose: Opioid data analysis and resources.* Retrieved from https://www.cdc.gov/drugoverdose/data/analysis.html

CDC (2018, December 19). *Opioid overdose: Understanding the epidemic.* Retrieved from https://www.cdc.gov/drugoverdose/epidemic/index.html

CDC (2017, August 29). *Opioid overdose: Prescription opioids.* Retrieved from https://www.cdc.gov/drugoverdose/opioids/prescribed.html

CDC (2016). *Prescription opioids: What you need to know* (Publication No. CS264107C) Retrieved from https://www.cdc.gov/drugoverdose/pdf/AHA-Patient-Opioid-Factsheet-a.pdf

CDC (n.d.) Checklist for prescribing opioids for chronic pain. (Publication No. CS273808A). Retrieved from https://www.cdc.gov/drugoverdose/pdf/PDO_Checklist-a.pdf

CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2018. https://wonder.cdc.gov

Cheattle, M. D. (2017, March 15). *Risk assessment: Safe opioid prescribing tools.* Retrieved from https://www.practicalpainmanagement.com/resource-centers/opioid-prescribing-monitoring/risk-assessment-safe-opioid-prescribing-tools

Drugabuse.com (2018, November 5). Opiate abuse. Retrieved from https://drugabuse.com/opiates/

Drugs.com (2018, December 21). *Opioid withdrawal*. Retrieved from https://www.drugs.com/cg/opioid-withdrawal.html

Florida Board of Medicine. (2014, November 14). *Prescription drug monitoring program.* Retrieved from https://flboardofmedicine.gov/latest-news/prescription-drug-monitoring-program-2/

Florida Department of Health. (2018, November 8). E-FORCSE home page. Retrieved from http://www.floridahealth.gov/statistics-and-data/e-forcse/index.html

Isavefl.com (n.d.) How to use naloxone. Retrieved from https://isavefl.com/naloxone.shtml

Isavefl.com (n.d.) Save a life poster. Retrieved from https://isavefl.com/index.shtml#resources

Kosten, T. R., & George, T. P. (2002). The neurobiology of opioid dependence: implications for treatment. *Science & practice perspectives*, 1(1), 13-20.

National Institute on Drug Abuse (NIDA). (2019, January). *Opioid overdose crisis*. Retrieved from https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis

NIDA (2018, June). *Medications to treat opioid use disorder.* Retrieved from https://www.drugabuse.gov/publications/research-reports/medications-to-treat-opioid-addiction/overview

NIDA. (2018, June 7). *Prescription opioids*. Retrieved from https://www.drugabuse.gov/publications/drugfacts/prescription-opioids on 2019, March 9

NIDA. (2018, February). Florida opioid summary. Retrieved from https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/florida-opioid-summary

NIDA. (2018, February 27). Common Comorbidities with Substance Use Disorders. Retrieved from https://www.drugabuse.gov/publications/research-reports/common-comorbidities-substance-use-disorders

NIDA. (2018, January 17). Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition). Retrieved from https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition

Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths — United States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;67:1419–1427. DOI: http://dx.doi.org/10.15585/mmwr.mm675152e1

Substance Abuse and Mental Health Services Administration. (2016, March). *Medication-Assisted Treatment of opioid use disorder pocket guide.* (Publication No. SMA16-4892PG). Retrieved from https://store.samhsa.gov/product/Medication-Assisted-Treatment-of-Opioid-Use-Disorder-Pocket-Guide/SMA16-4892PG

Webster L.R., Webster R. Predicting aberrant behaviors in Opioid-treated patients: preliminary validation of the Opioid risk too. Pain Med. 2005; 6 (6): 432. Retrieved from https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf

University of Pittsburgh Medical Center (2018, March 20). *How to recognize the signs of opioid abuse.* Retrieved from https://share.upmc.com/2018/03/signs-of-opioid-abuse/