Striking a Balance

Understanding Pain Management and Opioids

PRESENTED BY CO*RE

DISCLOSURE

Authors have no conflicts of interest to disclose

Presentation will include discussion of off label medication use

INTERMOUNTAIN HEALTHCARE AND AUTHORS HAVE NOT RESEARCHED OR INDEPENDENTLY VALIDATED ANY ASSERTIONS OR CLAIMS AS DESCRIBED IN THIS PRESENTATION AS SUCH, INTERMOUNTAIN HEALTHCARE AND AUTHORS OFFERS NO ASSURANCE AS TO THE INFORMATION DESCRIBED HEREIN, ANY SUCH RELIANCE AND LIABILITY IS SOLELY ON THE INDIVIDUAL REVIEWEING AND RELYING UPON ANY USE.

PRESENTER INFORMATION

BIO:

Norman Bowers, PA-C has worked in the field of pain management since 2016. Prior to this he has worked in Southeastern New Mexico providing care for ear nose and throat patients. He currently sees patients suffering from a variety of chronic pain issues, including chronic back pain, neck pain, neuropathic pain, and has a special interest in providing care to a variety of headache and migraine conditions. He uses an interdisciplinary approach to help patients live the healthiest lives possible.

Norman is from Arizona, and enjoys basketball, volleyball, golf, hiking, and camping with his family

DISCLOSURE:

Norman Bowers has no financial relationships with the manufacturers of goods or services discussed, or corporate supporters of this activity.

Intermountain Health

PRESENTER INFORMATION

BIO:

Mathew Romankowski, MD was raised in Salt Lake City, UT and attended Westminster College prior to completing medical school at the University of Utah School of Medicine in 2013. Completed Transitional Year in Tucson, AZ at THMEP in 2014 followed by Anesthesiology residency at Jackson Memorial Hospital/University of Miami and the University of Florida in Gainesville. Further subspecialized with ACGME fellowship in Multidisciplinary Pain Medicine at the University of Florida in 2019. I have been practicing pain medicine at Utah Valley Pain Management since October 2019 with keen focus on multimodal and interdisciplinary treatment strategies to care for our diverse chronic pain patient population. I have particular interest in interventions and neuromodulation including dorsal column, DRG, and peripheral nerve stimulation.

DISCLOSURE:

Dr. Romankowski has no financial relationships with the manufacturers of goods or services discussed, or corporate supporters of this activity.

Intermountain Health

PRESENTER INFORMATION

BIO:

Joshua Minori, DO is a double-boarded physician specializing in non-surgical management of neuromusculoskeletal disorders as well as acute and chronic pain conditions. He completed his fellowship in pain medicine at the University of California Davis. His residency in physical medicine and rehabilitation was completed at Schwab Rehabilitation Hospital/University of Chicago. He spent an additional year as a research fellow at the Rothman Orthopedic Institute at Thomas Jefferson University Hospital. Before attending medical school at the Philadelphia College of Osteopathic medicine, he earned a degree in athletic training and worked as a Certified Athletic Trainer in high schools, colleges and physical therapy clinics.

DISCLOSURE:

Dr. Minori has no financial relationships with the manufacturers of goods or services discussed, or corporate supporters of this activity.

Intermountain Health

PRESENTER INFORMATION

BIO:

Joy Hrushka, DO received her medical degree from Edward Via College of Osteopathic medicine in South Carolina, and subsequently completed her anesthesiology residency at the University of Louisville in Kentucky. She recently completed her fellowship training at the University of Utah to specialize in Pain Medicine. She has extensive experience in managing acute pain in a perioperative setting from her anesthesia background as well as having knowledge in treating chronic pain from her specialty training. She believes in approaching a patient from an interdisciplinary aspect utilizing procedural interventions, medications, behavioral health counseling focused on pain, and physical therapy through an individualized approach.

DISCLOSURE:

Dr. Hrushka has no financial relationships with the manufacturers of goods or services discussed, or corporate supporters of this activity.

Intermountain Health

ACKNOWLEDGMENTS

Presented by the California Academy of Family Physicians, a member of the CO*RE Collaborative, ten interdisciplinary organizations working together to improve pain management and prevent adverse outcomes. For more information about CO*RE, visit http://core-rems.org/.

This activity is supported by an independent educational grant from the Opioid Analgesics REMS Program Companies (RPC). This activity is intended to be fully compliant with the Opioid Analgesic (OA) REMS education requirements issued by the U.S. Food and Drug Administration. For more information about the Opioid Analgesics REMS, visit https://opioidanalgesicrems.com/RpcUI/products.u.

Scan the QR code to go to the FDA OA REMS Blueprint

THE CO*RE COLLABORATIVE

This course does not advocate for or against the use of opioids.

We intend to help clinicians manage pain without putting vulnerable patients at risk for misuse or opioid use disorder. The goal is to keep our patients, our communities, and ourselves SAFE.

CO*RE FACULTY ADVISORY PANEL

Michael Cheshire, DO, FACOI, FACP

WEST VIRGINIA SCHOOL OF MEDICINE

Katherine Galluzzi, DO

PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE

Anita Karnik, MD

UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE

Barbara St. Marie, PhD, AGPCNP, FAANP, FAAN

UNIVERSITY OF IOWA

Arianna Sampson Campbell, PA-C

MARSHALL MEDICAL CANTER

Joseph Shega, MD

VITAS HEALTHCARE

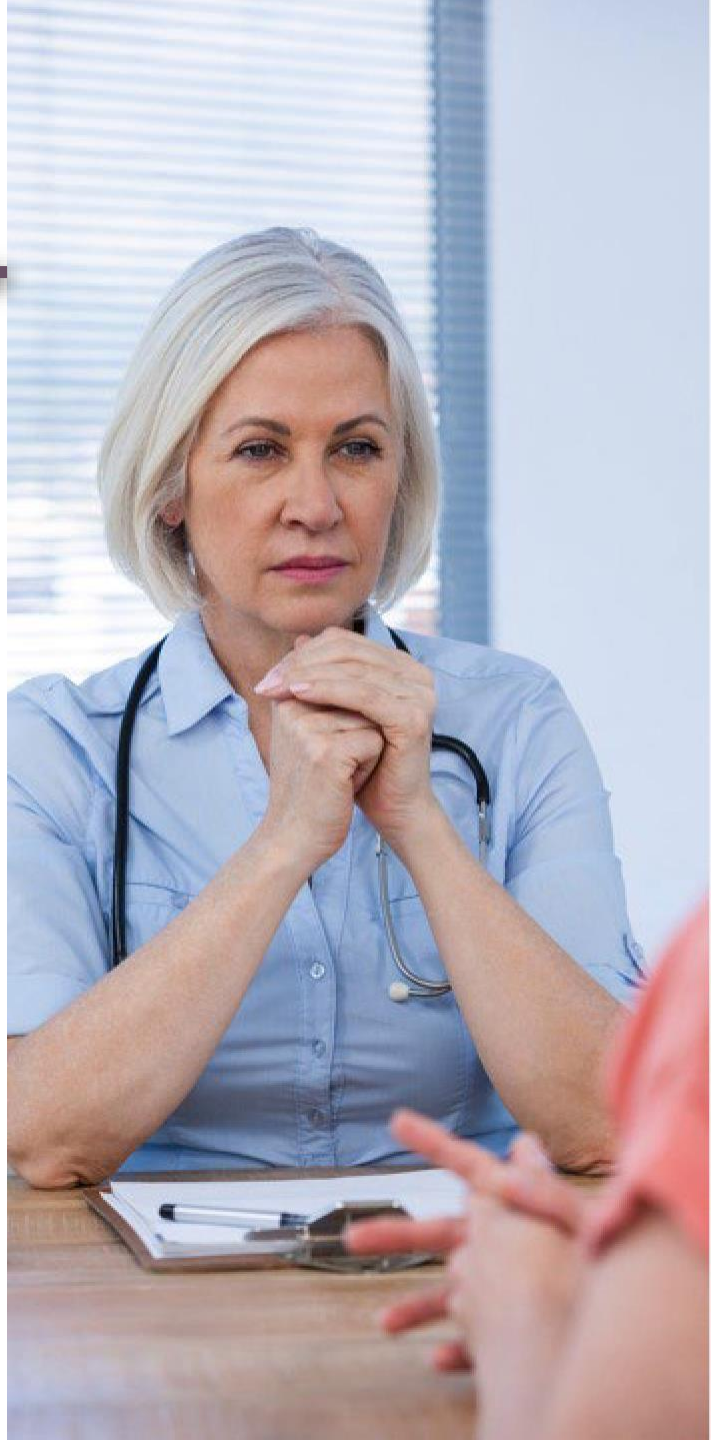
None of the Faculty Advisors, Reviewers, or Planners for this educational activity have relevant financial relationships with ineligible companies to disclose.

This course is based on the FDA's Opioid Analgesic REMS (FDA Blueprint, Sept. 2018) and existing guidelines, including the 2022 CDC Clinical Practice Guideline for Prescribing Opioids for Pain.

CO*RE

BY THE END OF THIS SESSION YOU WILL BE ABLE TO:

1. Describe the pathophysiology of pain as it relates to the concepts of pain management.
2. Accurately assess patients in pain.
3. Develop a safe and effective pain treatment plan.
4. Identify evidence-based non-opioid options for the treatment of pain.
5. Identify the risks and benefits of opioid therapy.
6. Manage ongoing opioid therapy.
7. Recognize behaviors that may be associated with opioid use disorder.



Cannabis and Pain

November 2023

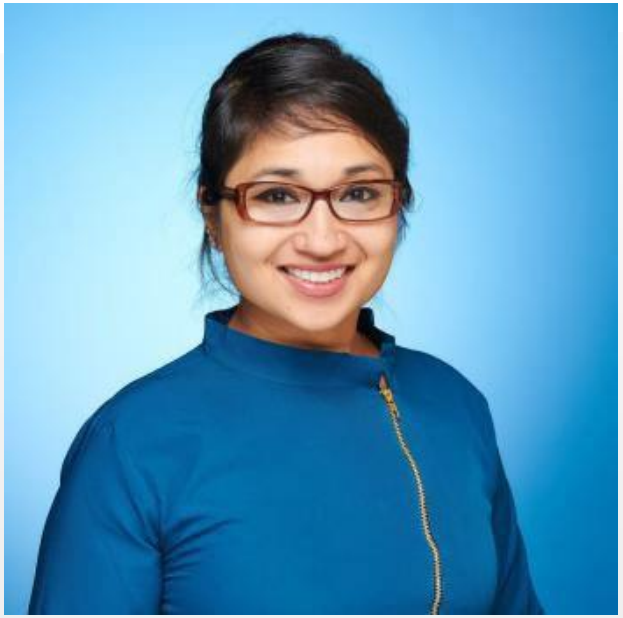
PRESENTED BY CO*RE

CO*RE

FACULTY CONTENT DEVELOPERS/REVIEWERS

Dr. Tauheed Zaman
Director, Addiction Consult & Opioid Safety
San Francisco Veterans Administration

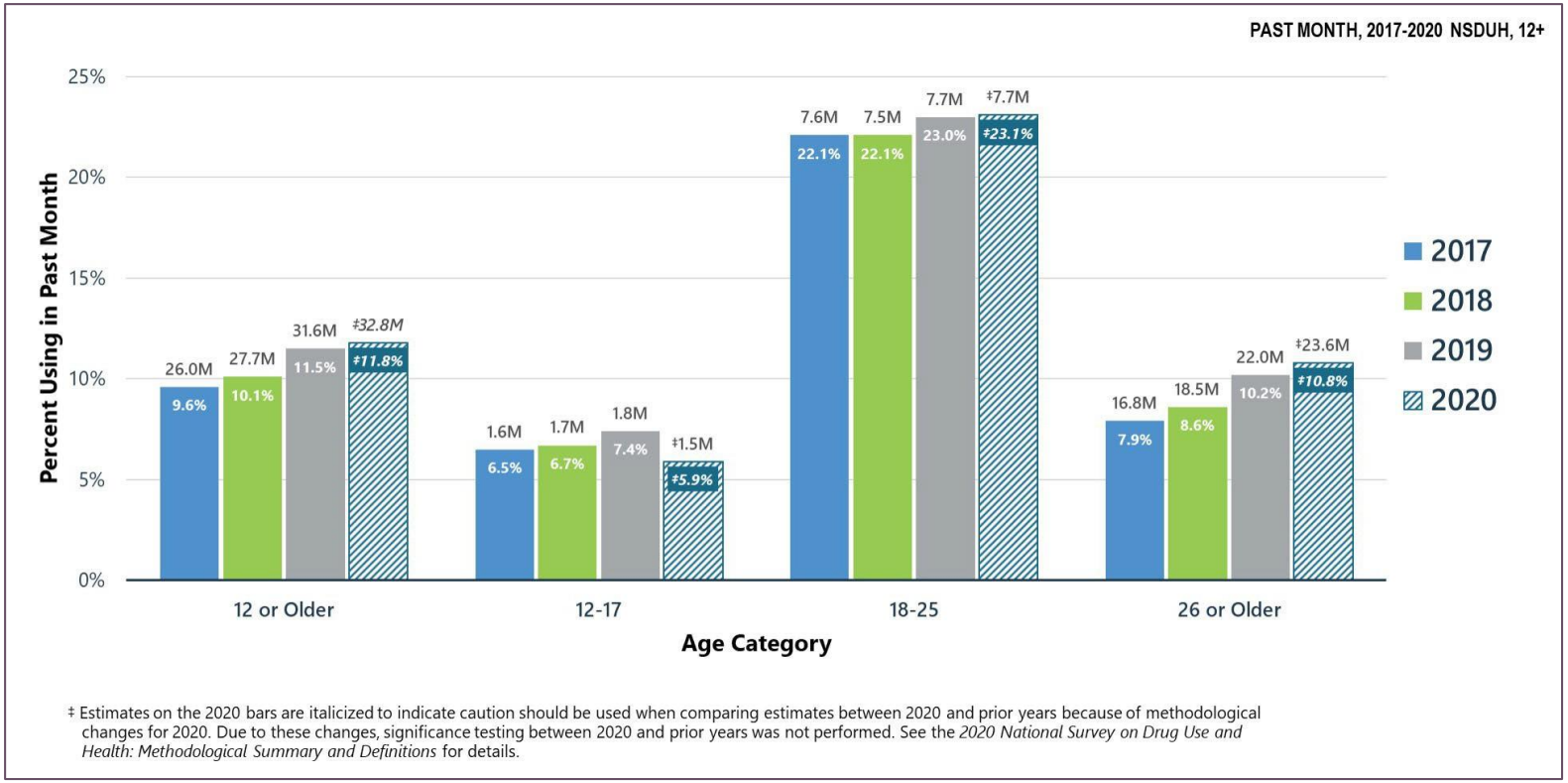
He has no relevant financial relationships with ineligible companies to disclose.



Dr. Smita Das
Medical Director of Psychiatry
Lyra Health

She has no relevant financial relationships with ineligible companies to disclose.

EPIDEMIOLOGY & RECENT TRENDS

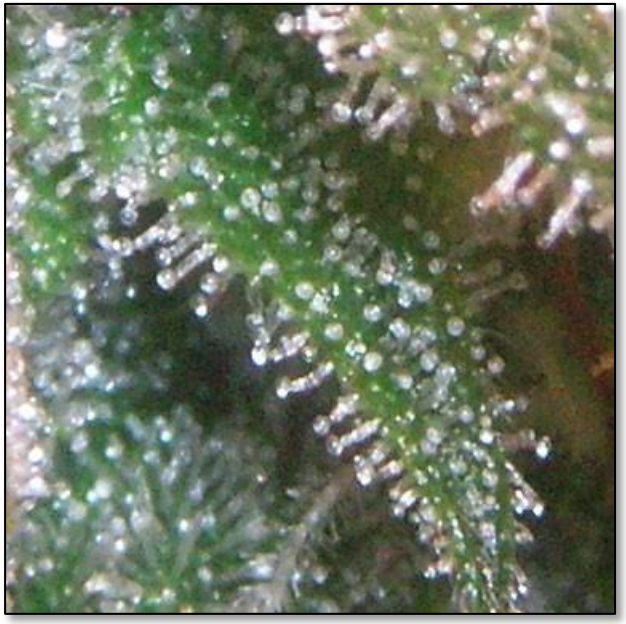


- Most commonly-used federally illicit substance in the U.S.
- 44% of people aged 19-30 used in the last year with daily use at 11%, all time highs
- Use is increasing among those 12+ and 26 +

SOURCES: SAMHSA 2020 report from National Survey on Drug Use and Health (NSDUH)
https://monitoringthefuture.org/wp-content/uploads/2023/07/mtfpanel2023.pdf

THE CANNABIS PLANT

- Cannabis is a complex plant with over 500 compounds.
- Multiple species of cannabis including sativa, indica and rudelaris. Marijuana often refers to the dried leaves, flowers, stems and seeds.
- Cannabinoids are stored in trichomes on plant surface, extracted and put into consumable form
- Most commonly inhaled

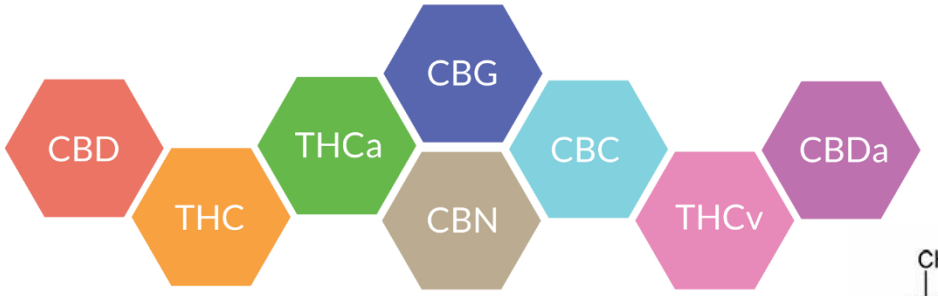


Trichomes on cannabis leaf surface

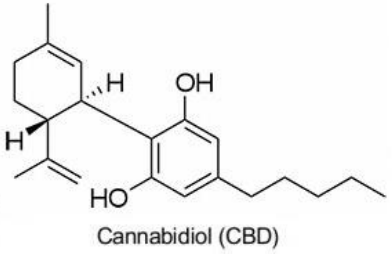
SOURCE: Adapted from S.Jacobs 4/2018; Psychonaut/Wikimedia Commons

CHEMICAL COMPOSITION

- Over 100 cannabinoids in cannabis plants, most unstudied
- THC associated with more negative effects (euphoria, addiction)
- CBD is being studied for therapeutics, but outside of synthesized CBD for rare seizure disorders, no well-established indications
- Preparations often labeled with inaccurate THC & CBD content
- Varying concentration, other cannabinoids may have health effects



Tetrahydrocannabinol (THC)



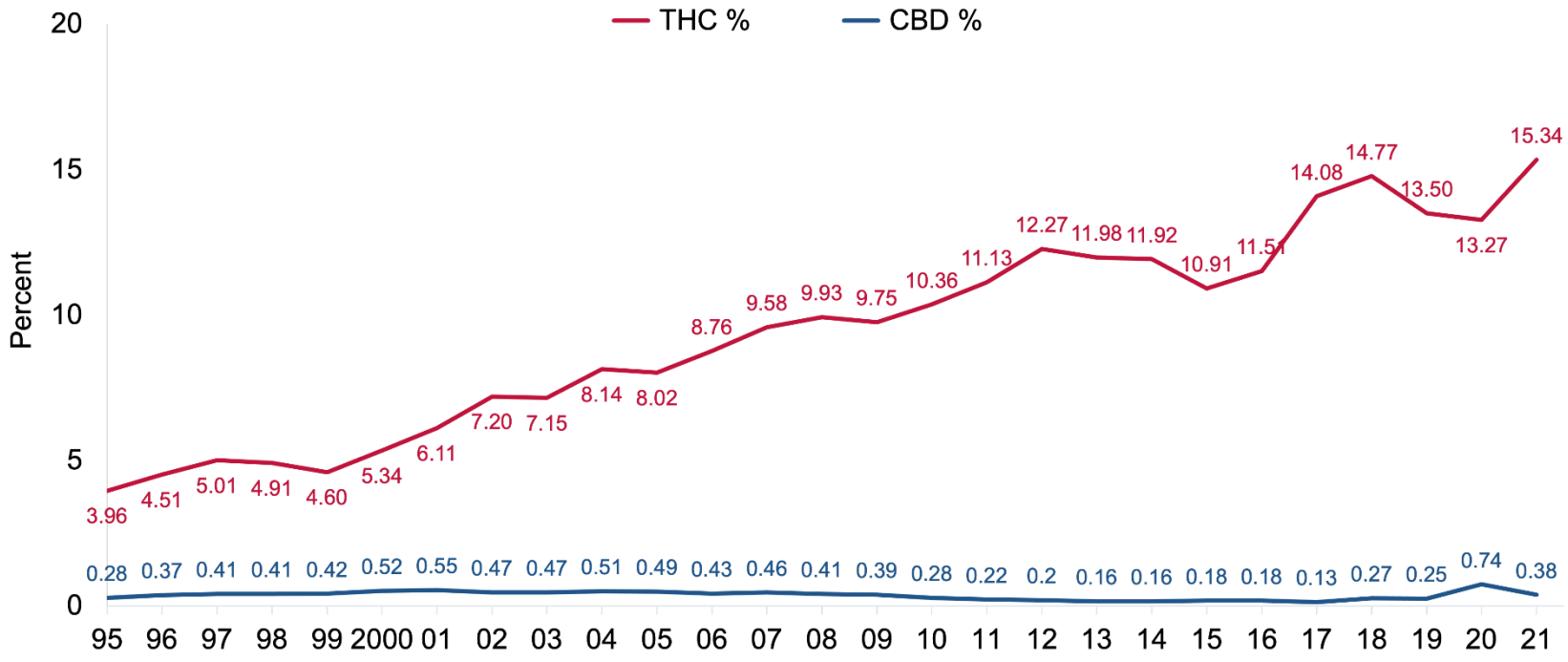
Cannabidiol (CBD)

SOURCE: Hayakawa, K. et al. Therapeutic Potential of Non-Psychotropic Cannabidiol in Ischemic Stroke. Pharmaceuticals **2010**, 3, 2197-2212

INCREASED THC POTENCY OVER TIME

THC concentration increased 5% → > 30% in recent years

Percentage of THC and CBD in Cannabis Samples Seized by the DEA, 1995-2021



SOURCE: U Miss, Potency Monitoring Project

CO*RE

NEWER CANNABINOIDS IN USE BY PATIENTS

CANNABINOL (CBN)	CANNABIGEROL (CBG)
• Oxidation byproduct of THC • Less potent than THC • Used for sleep problems, depression, anxiety, pain • No rigorous studies	• Present in small amounts • Precursor to other cannabinoids • Theoretical anti-inflammatory properties • Used for pain management • No rigorous studies

SOURCE: Corroon, Cannabis and Cannabinoid Res, 2021; Navarro et al, Cannabis and Cannabinoid Res, 2020;

PREPARATIONS

PREPARATIONS	DESCRIPTION	USE
MARIJUANA	Dried plant product consisting of leaves, stems, and flowers	Smoked or vaporized
HASHISH	Concentrated resin cake	Ingested or smoked
TINCTURE	Cannabinoid liquid extracted from plant	Consumed sublingually
HASHISH OIL	Oil obtained from Cannabis plant by solvent extraction	Smoked or vaporized
INFUSION	Plant material mixed with nonvolatile solvents (e.g., butter, cooking oil)	Ingested

SOURCE: Hill 2015, JAMA

PREPARATIONS & PACKAGING

SOURCE: wyomingpublicmedia.org

SOURCE: Hoodline 2017

SOURCE: businesswire.com

SOURCE: Lindsay Fox/Wikimedia Commons

“MEDICAL” CONTAINERS

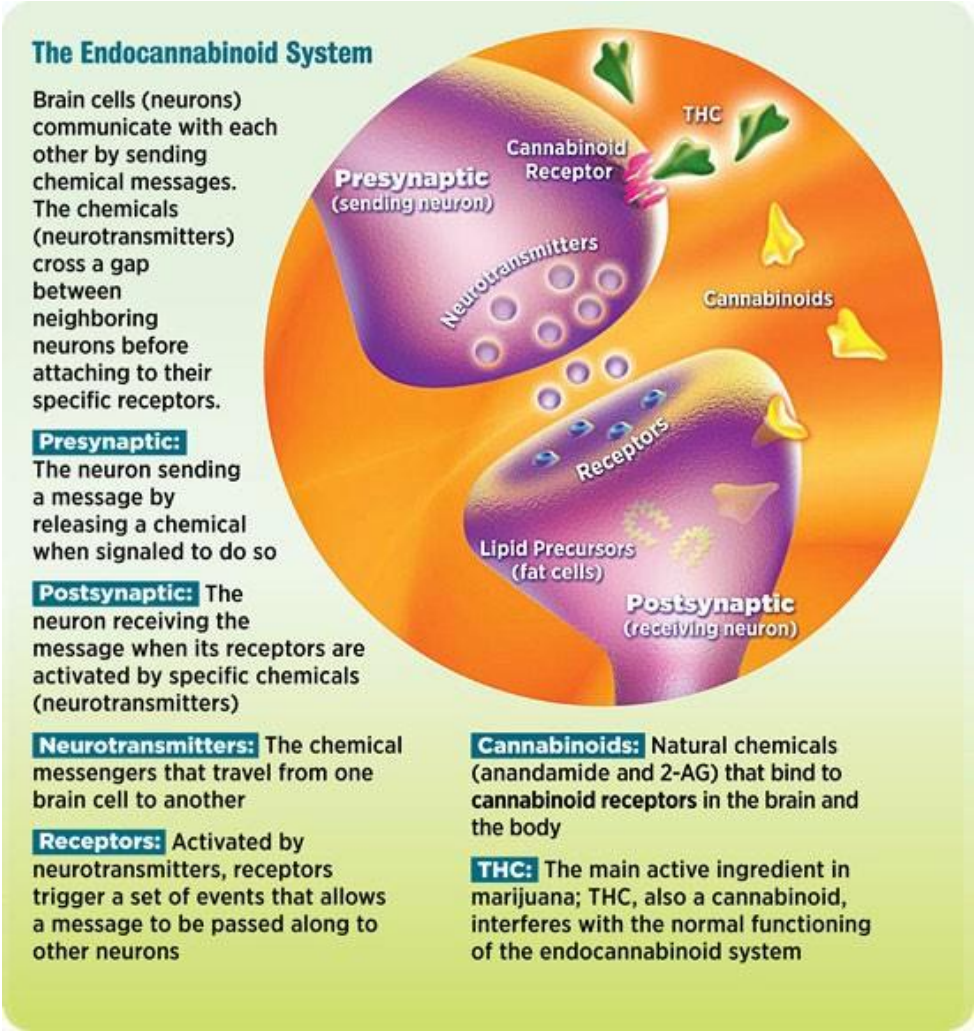
SOURCE: Zaman 2016

SYNTHETIC CANNABIONOID PRODUCTS

- Typically chemicals sprayed onto dried plant product
- Examples: K2, Spice, Joker, Black Mamba, Kush, KronicSynthetic chemicals sprayed onto dried, shredded plant product
- Mimic THC, bind strongly to same receptors → stronger effects
- Could cause changes in mood/perception, psychosis, tachycardia, vomiting, violent behavior, SI, renal impairment, seizures, death
- Often undetectable in standard urine drug tests
- Warn patients against using these products, severe adverse effects

SOURCE: SAMHSA 2019, NY Dept Pub Health, DEA drugabuse.gov

MECHANISM: HOW DOES CANNABIS WORK?



- Endogenous cannabinoids originate from postsynaptic membrane
- Act on presynaptic cannabinoid receptors
- Modulate release of neurotransmitters (e.g., dopamine)
- Exogenous cannabinoids co-opt this system
- Also affects 5HT, alpha, TRPV, TRPA receptors

SOURCE: NIDA 2011

THEORETICAL MECHANISMS FOR ANALGESIA

- Cells in injured tissue release endocannabinoids
- CB1-r in brain, spinal cord → mitigate sensitization, inflammation
- CB2-r in brain, spinal cord, dorsal root ganglion → reduce inflammatory hyperalgesia
- Long-term studies of exogenous cannabinoids and pain still needed; other mechanisms possible
- Caution with any drug where subjective pain improves, but has addictive properties (e.g., alcohol, opioids, benzodiazepines)

SOURCE: Hill 2017 Cannabis and Cannabinoid Res

PERCEPTIONS OF MEDICAL EFFICACY vs DATA

Perceptions

- 81% of patients believe marijuana has at least one benefit
- 66% of patients believe in pain benefit

Data

- Systematic Review of RTCs: 2021: Outcomes had low or very low-quality evidence, neither supporting nor refuting efficacy
- Meta analysis 2022: Placebo contributes significantly to pain reduction in cannabis clinical trials
- Review 2022: High THC:CBD products (>98% THC) associated with 25% reduction in pain in short-term studies of variable quality

SOURCES: Steigerwald et al, J Addict Med, 2020; Fisher et al Pain 2021; Gedin et al, JAMA 2022; McDonagh Annals 2022

CO*RE

OPIOID-SPARING THEORY vs DATA

Theory: If cannabis products treat pain, patient may use these products and reduce their use of opioids

Data

- States with medical cannabis have modestly lower rates of opioid prescribing and risky opioid prescribing
- **2019 Study:** Association between med cannabis and reduced opioid mortality has **reversed** over time
- **2021 Meta Analysis:** Opioid-sparing effects remain uncertain due to very low evidence
- **2022 Meta Analysis:** Preclinical/observational studies show opioid-sparing effect, but higher-quality RCTs do not
- **2023 Living Systematic Review:** Cannabis impact on use of opioids remains insufficient

SOURCES: Shah et al, JGIM 2019, Noori et al BMJ Open 2021; Nielsen Neuropsychopharm 2022; Chou et al, AHRQ, 2023.

CO*RE

MEDICAL INDICATIONS

Psychiatric:

- Not well-studied or FDA-approved for any psychiatric condition

Non-Psychiatric FDA Approvals:

- Nausea, vomiting related to chemotherapy
- Anorexia/wasting related to HIV
- Rare childhood forms of epilepsy

The American Psychiatric Association has a Position Statement Against the Use of Cannabis for PTSD and a Position Statement in Opposition to Cannabis as Medicine

SOURCE: APA 2019; US FDA2020 FDA and Cannabis: Research and Drug Approval Process

FDA-APPROVED CANNABINOIDS

Medication	Type	Indication
Dronabinol (Marinol; Syndros)	Synthetic	Anorexia/wasting in AIDS patients
Nabilone (Cesamet)	Synthetic	Nausea, vomiting in chemotherapy patients
Cannabidiol (Epediolex)	Plant-derived	Lennox-Gastaut; Dravet's

SOURCE: fda.gov

CLINICAL CONSIDERATIONS

- Individual risk stratification is crucial
  - Person/family history of mental health, addictions
  - Baseline psychosis risk
  - Risks related to driving, work, education, parenting
  - Medical, cognitive issues worsened by cannabis
- Counsel patients
  - Federally, cannabis is illegal (Schedule 1)
  - States vary
  - Review harm reduction strategies
- Use PPA and document conversations about risks
- Seek institutional legal counsel to reduce liability

CANNABIS AND HARM REDUCTION

- Abstinence is best way to avoid health risks
- Avoid early-age initiation
- Avoid high frequency use (daily or near daily)
- Choose low-potency THC or balanced THC:CBD ratios
- Abstain from synthetic products
- Avoid combustible products, non-smoking methods preferable
- Avoid use in older adults due to risks

- Avoid deep/risky inhalation
- Abstain from cannabis-impaired driving
- High-risk populations should avoid use (e.g., psychosis, addictions)
- Track use over time, including metered dosing
- Set a time limit and goal for use, and continue to monitor for signs of Use Disorder

SOURCE: Adapted from Fischer et al, 2017. American J Public Health Policy

KRATOM

- Substance in powder form, derived from tropical plant
- Prevalence 0.8% (past yr); 1.3 % (life-time use)
- Contains *mitragynine*, *7-alpha-hydroxymitragynine*
- Not a cannabinoid
- Has opioid and stimulant effects (pain, detox, high)
- Can produce opioid withdrawal, addiction
- Does not appear on standard UDT
- Treat with supportive meds, opioid agonists/partial agonists
- Counsel patients on risk, refer for addiction eval as appropriate

SOURCE: drugabuse.gov; Shimmel et al Addiction 2021

REFERENCES

- NSDUH 2021 survey results. https://www.cdc.gov/nchs/hus/sources-definitions/nsduh.htm
- National Institute on Drug Abuse (NIDA). (2022, November 23). *Cannabis (Marijuana) Potency - Delta-9-tetrahydrocannabinol (THC) and Cannabidiol (CBD) Potency of Cannabis Samples Seized by the Drug Enforcement Administration (DEA), Percent Averages from 1995-2021* Data Source: U Miss Potency Monitoring Program, Quarterly Report # 153, NIDA Contract Number: N01DA-15-7793 https://nida.nih.gov/research-topics/marijuana/cannabis-marijuana-potency
- Gedin F, Blomé S, Pontén M, Lalouni M, Fust J, Raquette A, Vadenmark Lundquist V, Thompson WH, Jensen K. Placebo Response and Media Attention in Randomized Clinical Trials Assessing Cannabis-Based Therapies for Pain: A Systematic Review and Meta-analysis. JAMA Netw Open. 2022 Nov 1;5(11):e2243848. doi: 10.1001/jamanetworkopen.2022.43848. PMID: 36441553.
- Shah A, Hayes CJ, Lakkad M, Martin BC. Impact of Medical Marijuana Legalization on Opioid Use, Chronic Opioid Use, and High-risk Opioid Use. J Gen Intern Med. 2019 Aug;34(8):1419-1426. doi: 10.1007/s11606-018-4782-2. Epub 2019 Jan 25. PMID: 30684198; PMCID: PMC6667507.
- Fisher E, Moore RA, Fogarty AE, Finn DP, Finnerup NB, Gilron I, Haroutounian S, Krane E, Rice ASC, Rowbotham M, Wallace M, Eccleston C. Cannabinoids, cannabis, and cannabis-based medicine for pain management: a systematic review of randomised controlled trials. Pain. 2021 Jul 1;162(Suppl 1):S45-S66. doi: 10.1097/j.pain.0000000000001929. PMID: 32804836.
- Shover CL, Davis CS, Gordon SC, Humphreys K. Association between medical cannabis laws and opioid overdose mortality has reversed over time. Proc Natl Acad Sci U S A. 2019 Jun 25;116(26):12624-12626. doi: 10.1073/pnas.1903434116. Epub 2019 Jun 10. PMID: 31182592; PMCID: PMC6600903.
- Noori A, Miroshnychenko A, Shergill Y, Ashoorion V, Rehman Y, Couban RJ, Buckley DN, Thabane L, Bhandari M, Guyatt GH, Agoritsas T, Busse JW. Opioid-sparing effects of medical cannabis or cannabinoids for chronic pain: a systematic review and meta-analysis of randomised and observational studies. BMJ Open. 2021 Jul 28;11(7):e047717. doi: 10.1136/bmjopen-2020-047717. PMID: 34321302; PMCID: PMC8319983.

REFERENCES

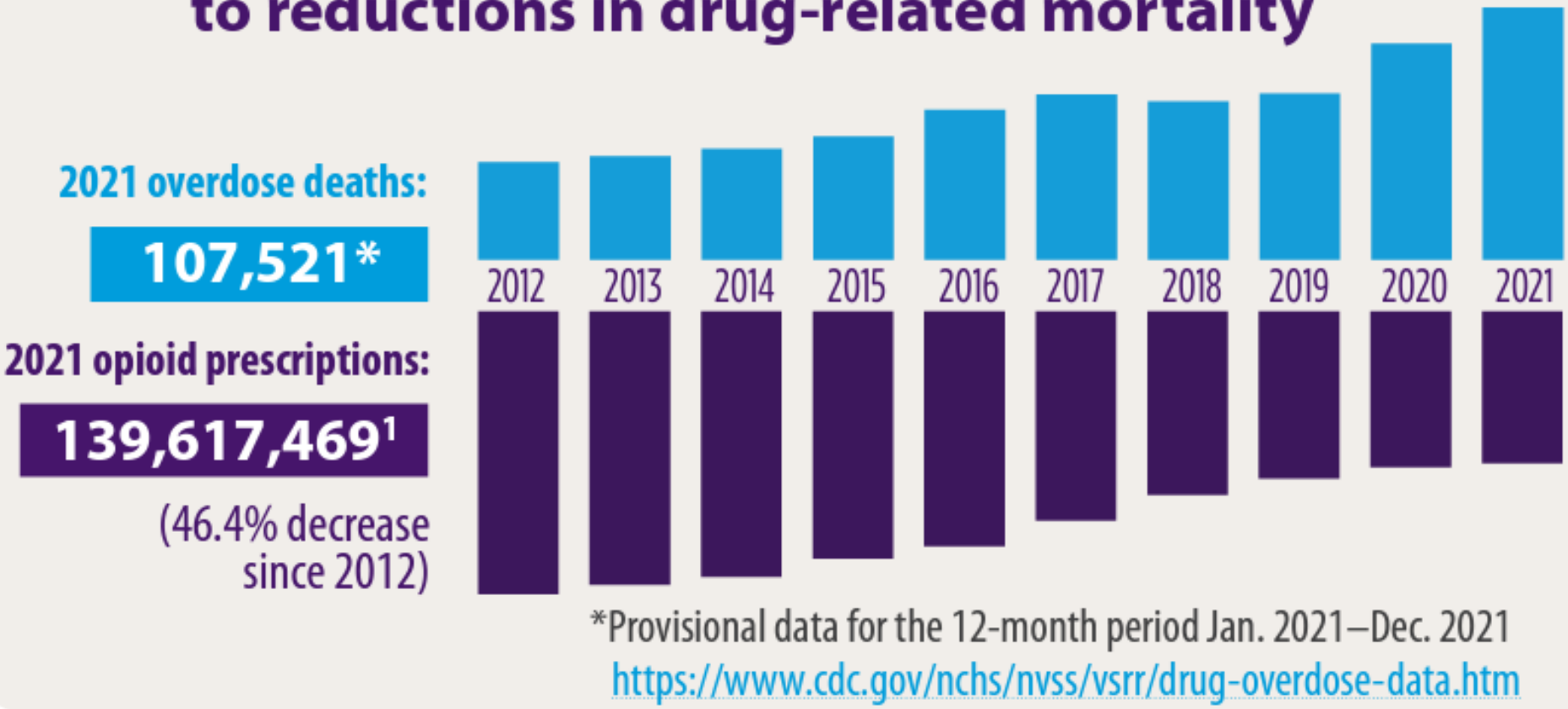
- Nielsen S, Picco L, Murnion B, Winters B, Matheson J, Graham M, Campbell G, Parvaresh L, Khor KE, Betz-Stablein B, Farrell M, Lintzeris N, Le Foll B. Opioid-sparing effect of cannabinoids for analgesia: an updated systematic review and meta-analysis of preclinical and clinical studies. Neuropsychopharmacology. 2022 Jun;47(7):1315-1330. doi: 10.1038/s41386-022-01322-4. Epub 2022 Apr 22. PMID: 35459926; PMCID: PMC9117273.
- Schimmel J, Amioka E, Rockhill K, Haynes CM, Black JC, Dart RC, Iwanicki JL. Prevalence and description of kratom (Mitragyna speciosa) use in the United States: a cross-sectional study. Addiction. 2021 Jan;116(1):176-181. doi: 10.1111/add.15082. Epub 2020 Apr 28. PMID: 32285981.
- Corroon J. Cannabinol and Sleep: Separating Fact from Fiction. Cannabis Cannabinoid Res. 2021 Oct;6(5):366-371. doi: 10.1089/can.2021.0006. Epub 2021 Aug 31. PMID: 34468204; PMCID: PMC8612407.
- Navarro G, Varani K, Lillo A, Vincenzi F, Rivas-Santisteban R, Raïch I, Reyes-Resina I, Ferreiro-Vera C, Borea PA, Sánchez de Medina V, Nadal X, Franco R. Pharmacological data of cannabidiol- and cannabigerol-type phytocannabinoids acting on cannabinoid CB1, CB2 and CB1/CB2 heteromer receptors. Pharmacol Res. 2020 Sep;159:104940. doi: 10.1016/j.phrs.2020.104940. Epub 2020 May 26. PMID: 32470563.
- McDonagh MS, Selph SS, Buckley DI, et al. Nonopioid Pharmacologic Treatments for Chronic Pain [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2020 Apr. (Comparative Effectiveness Review, No. 228.) Evidence Summary. Available from: https://www.ncbi.nlm.nih.gov/books/NBK556283/
- Steigerwald S, Cohen BE, Vali M, Hasin D, Cerda M, Keyhani S. Differences in opinions about marijuana use and prevalence of use by state legalization status. J Addict Med. 2020 July-Aug; 14(4): 337–344. doi: 10.1097/ADM.0000000000000593. PMID: 31821192; PMCID: PMC7269858.
- US FDA. (2020, October 1). *FDA and Cannabis: Research and Drug Approval Process.*https://www.fda.gov/news-events/public-health-focus/fda-and-cannabis-research-and-drug-approval-process

CO*RE

REFERENCES

- Chou R, Ahmed AY, Morasco BJ, Bougatsos C, Dana T, Fu R, Gilbreath T. Living Systematic Review on Cannabis Based Treatments for Chronic Pain: 2023 Update. Comparative Effectiveness Review No. 250. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 75Q80120D00006.) AHRQ Publication No. 23-EHC031. Rockville, MD: Agency for Healthcare Research and Quality; August 2023. doi: https://doi.org/10.23970/AHRQEPCCER250UPDATE2023.
- National Institute on Drug Abuse. Marijuana Drug Facts. https://www.drugabuse.gov/publications/drugfacts/marijuana. Accessed June 10, 2019.
- Vandrey R, Raber JC, Raber ME. Cannabinoid dose and label accuracy in edible cannabis products. JAMA. 2015;313(24):2491-2493. DOI: 10.1001/jama.2015.6613.
- Hill KP, Palastro MD, Johnson B, Ditre JW. Cannabis and pain: a clinical review. Cannabis and Cannabinoid Research. 2017;2(1):96-104. DOI: 10.1089/can.2017.0017
- Nugent SM, Morasco BJ, O'Neil ME, Freeman M, Low A, Kondo K, Elven C, Zakher B, Motu'apuaka M, Paynter R, Kasangara D. The effects of cannabis among adults with chronic pain and overview of general harms. Ann Intern Med. 2017;167(5):319-332. DOI: 10.7326/M17-0155.
- Whiting PF, Wolff RF, Deshpande S, Di Nisio M, Hernandez AV, Keyrentjes JC, Lang S, Misso K, Ryder S, Schmidkofer S, Westwood M, Kleijen J. Cannabinoids for medical use: a systematic review and meta-analysis. JAMA. 2015;313(24):2456-2473. DOI: 10.1001/jama.2015.6358
- National Academy of Science. The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research. http://nationalacademies.org/hmd/reports/2017/health-effects-of-cannabis-and-cannabinoids.aspx Released January, 2017. Accessed July 3, 2019.
- Fischer B, Russell C, Sabioni P, van den Brink W, Le Foll B, Hall W, Room R. Lower-risk cannabis use guidelines: a comprehensive update of evidence and recommendations. Am J Public Health. 2017;107(8):e1-e12.

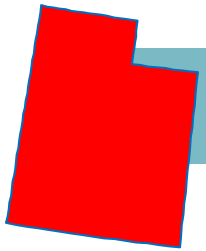
Reductions in opioid prescribing have not led to reductions in drug-related mortality



Source: https://www.ama-assn.org/system/files/ama-overdose-epidemic-report.pdf

CO*RE

Opioid Prescribing Rates & Overdose Deaths



Prescribing Rates (per 100 people)

	2018	2019	2020
UT	57.1	51.4	48.4

Office of National Drug Control Policy (ONDCP)

Non-Fatal Opioid Overdose Tracker

Opioid Overdose Death Rate Per 100,000 Population

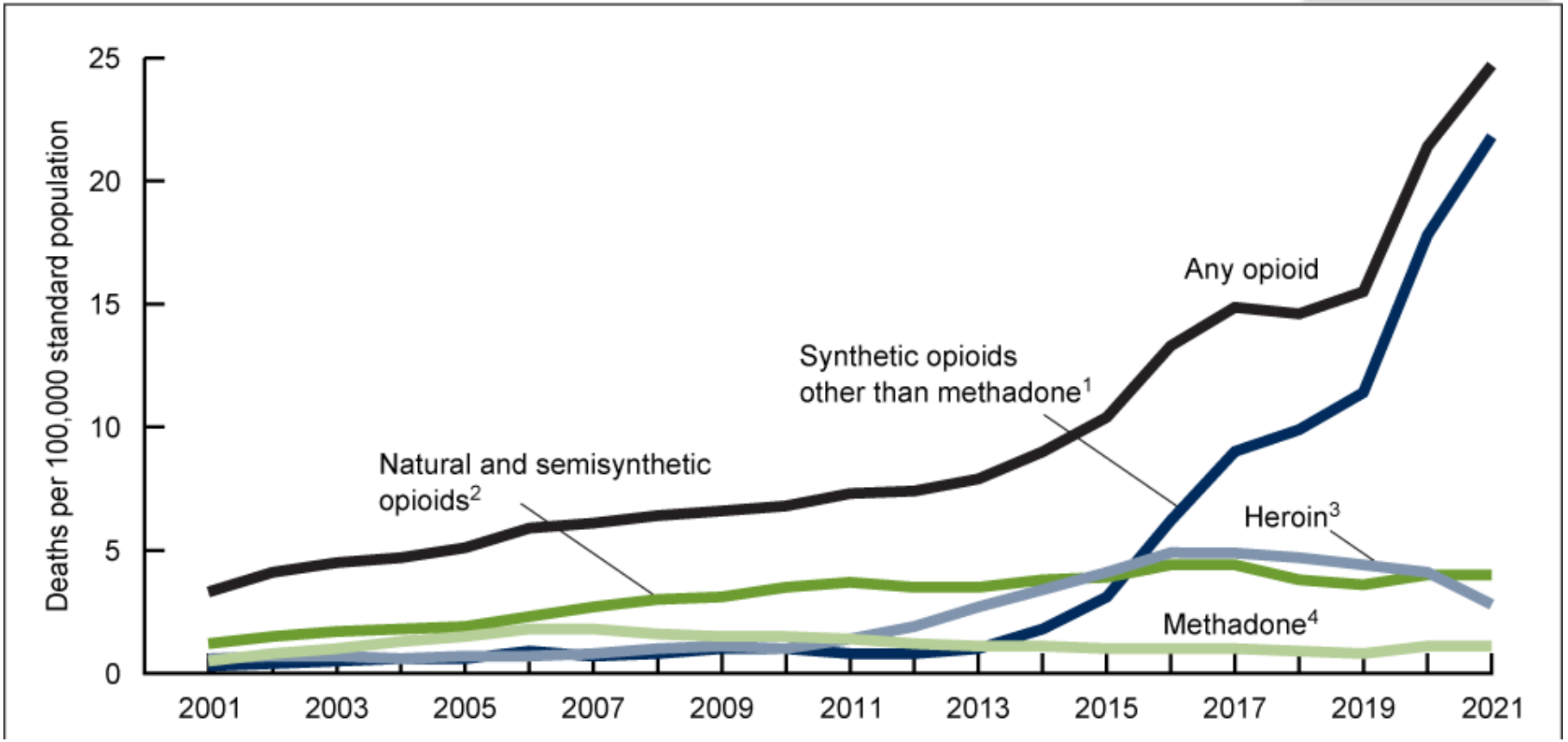
UT 2022	13.6	US 2022	24.8

https://www.cdc.gov/drugoverdose/rxrate-maps/
https://www.kff.org/state-category/health-status/opioids/

CO*RE

OPIOID OVERDOSE DEATHS BY TYPE OF OPIOID

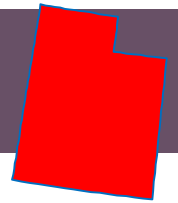
Figure 4. Age-adjusted rate of drug overdose deaths involving opioids, by type of opioid: US, 2001-2021



Source: https://www.cdc.gov/nchs/images/databriefs/451-500/db457-fig4.png

CO*RE

PDMP: Prescription Drug Monitoring Program



General

- **Utah Controlled Substance Database Program (CSD)** https://dopl.utah.gov/csd/index.html
- Administered by the **Division of Occupational and Professional Licensing**
- **Schedule II-V** are monitored
- **Dispensers and prescribers are required** to register and input data
- Before prescribing, there **is an obligation** to review under certain circumstances
- Prescribers **can authorize** a registered delegate

Reporting

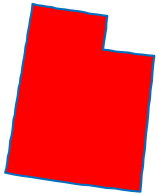
- Must be entered into PDMP **on a daily basis** after dispensing
- Unsolicited reports/alerts **are sent** to prescriber, dispensers, and law enforcement
- Utah **does share** data with other states' PDMP
- Out-of-state pharmacies **are not required** to report to the patient's home state
- Patient **will be notified** if their record has been accessed

https://namsdl.org/doc-library/?fwp_document_type=map January 2019
http://www.pdmpassist.org/content/pdmp-maps-and-tables January 2023

38 | © CO*RE 2023

Prescribing Limits, Status & Education Requirements

Initial prescribing limits for acute pain: 7-day supply



	Physician	PA	Advanced Practice Nurse
Prescriber Status	Licensed	Schedule II-V	Schedule II-V
Education Requirements	4 hrs./2 yrs	4 hrs./2 yrs.	4 hrs./2 yrs.

The Medication Access and Training Expansion (MATE) Act requires new or renewing Drug Enforcement Agency (DEA) registrants, as of June 27, 2023, to have completed a total of at least eight hours of training on opioid or other substance use disorders. This course meets the criteria outlined by Substance Abuse and Mental Health Services Administration (SAMHSA) to count toward this training requirement.

http://www.fsmb.org/siteassets/advocacy/key-issues/continuing-medical-education-by-state.pdf, January 2023
Opioid prescription limits and policies by state – Ballotpedia, April 4, 2022
www.netce.com/ce-requirements/
https://www.asam.org/education/dea-education-requirements

39 | © CO*RE 2023

Naloxone Regulation

Effective date	• **May 2017**
Criminal Immunity	• Prescribers: **Yes** • Dispensers: **Yes** • Lay People: **Yes**
Also Available	• Without Prescription: **Yes** • To 3rd Party: **Yes** • By Standing Order: **Yes**
Carried by First Responders	• **Yes**

On March 29, 2023, FDA announced approval of Narcan (naloxone hydrochloride) Nasal Spray (NNS) for use as a nonprescription opioid overdose reversal agent. OTC NNS commercially available Sept 2023. Other naloxone products will remain prescription drugs.

State Naloxone Access Rules and Resources - SAFE Project, January 2023
http://legislativeanalysis.org/wp-content/uploads/2023/02/Naloxone-Access-Summary-of-State-Laws.pdf
https://www.thefdalawblog.com/2023/03/2023-is-the-year-for-otc-naloxone 3/30/2023

MATE ACT AND STATE REQUIREMENTS

MATE Act

As of June 27, 2023, DEA registrants are to have completed a total of at least 8 hours of training on treatment and management of patients with opioid or other substance use disorders. This activity meets the criteria outlined by SAMHSA to count toward this training requirement.

State Requirements

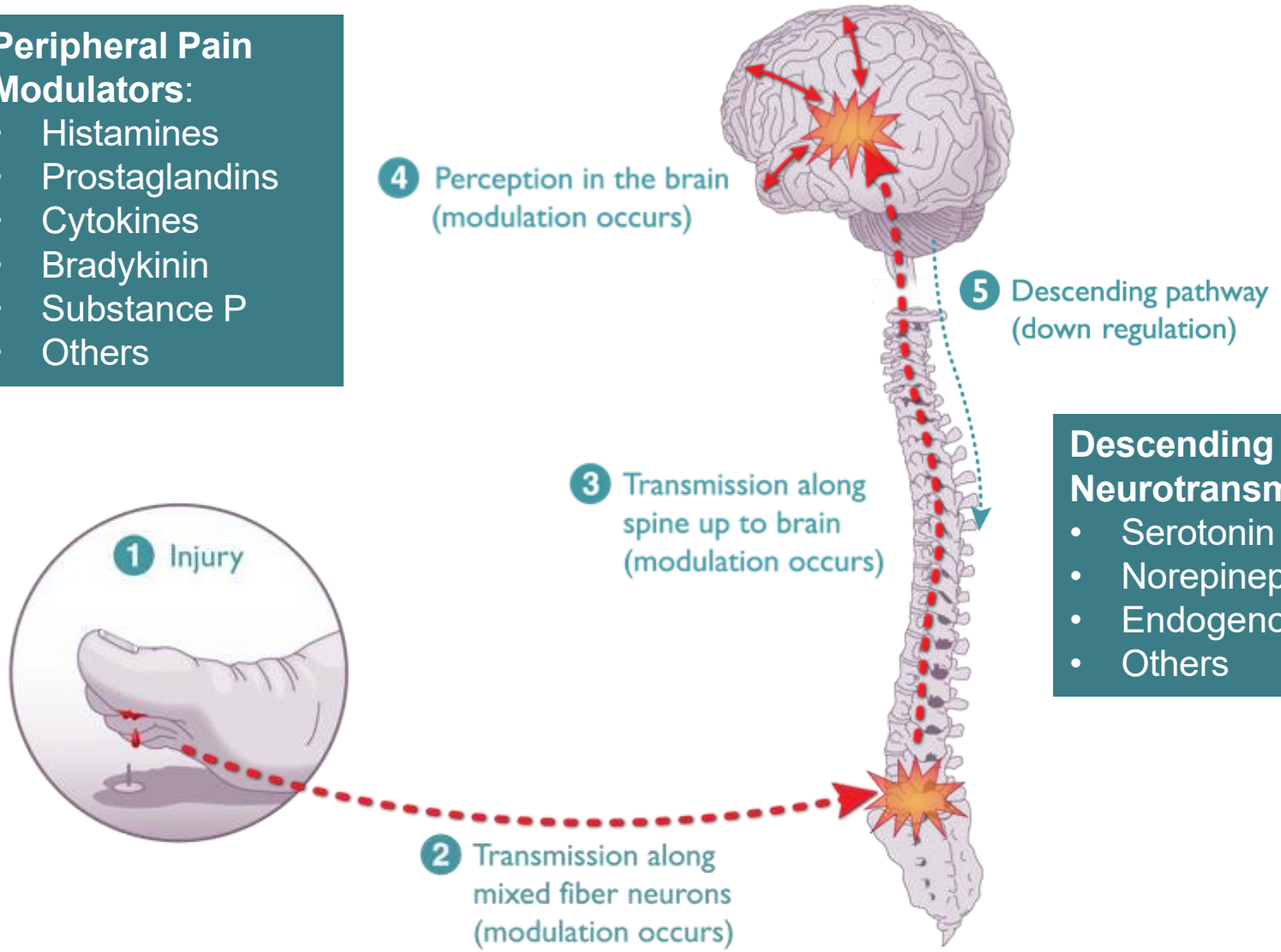
This course also meets many states' requirements for pain education.

CHAPTER 1
PAIN

Color of Pain by Dr. Kathleen A. Sluka
www.kathleenslukaart.com

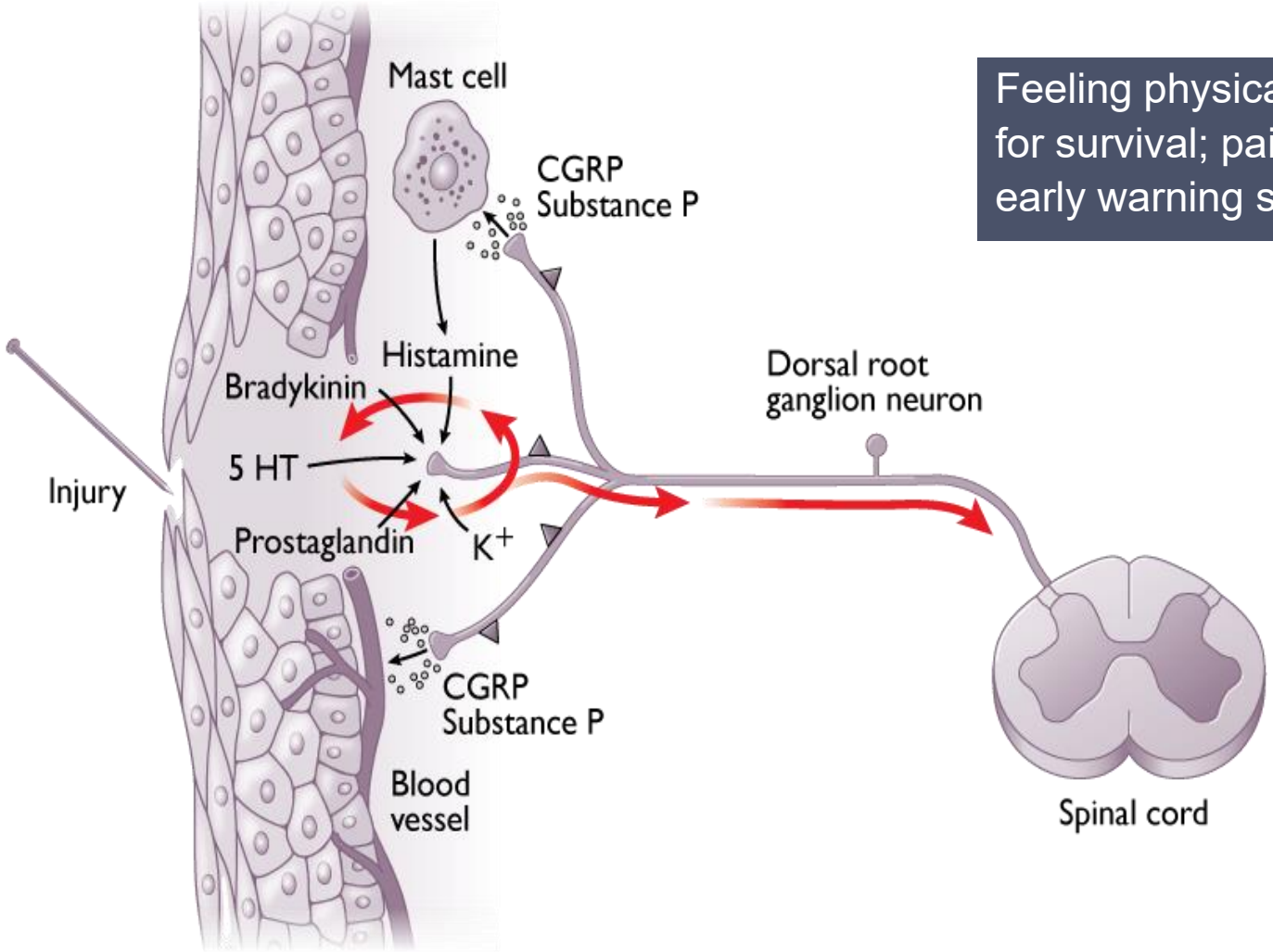
THE NEUROMECHANISMS OF PAIN

Peripheral Pain Modulators:
- Histamines
- Prostaglandins
- Cytokines
- Bradykinin
- Substance P
- Others



Descending Neurotransmitters:
- Serotonin
- Norepinephrine
- Endogenous opiates
- Others

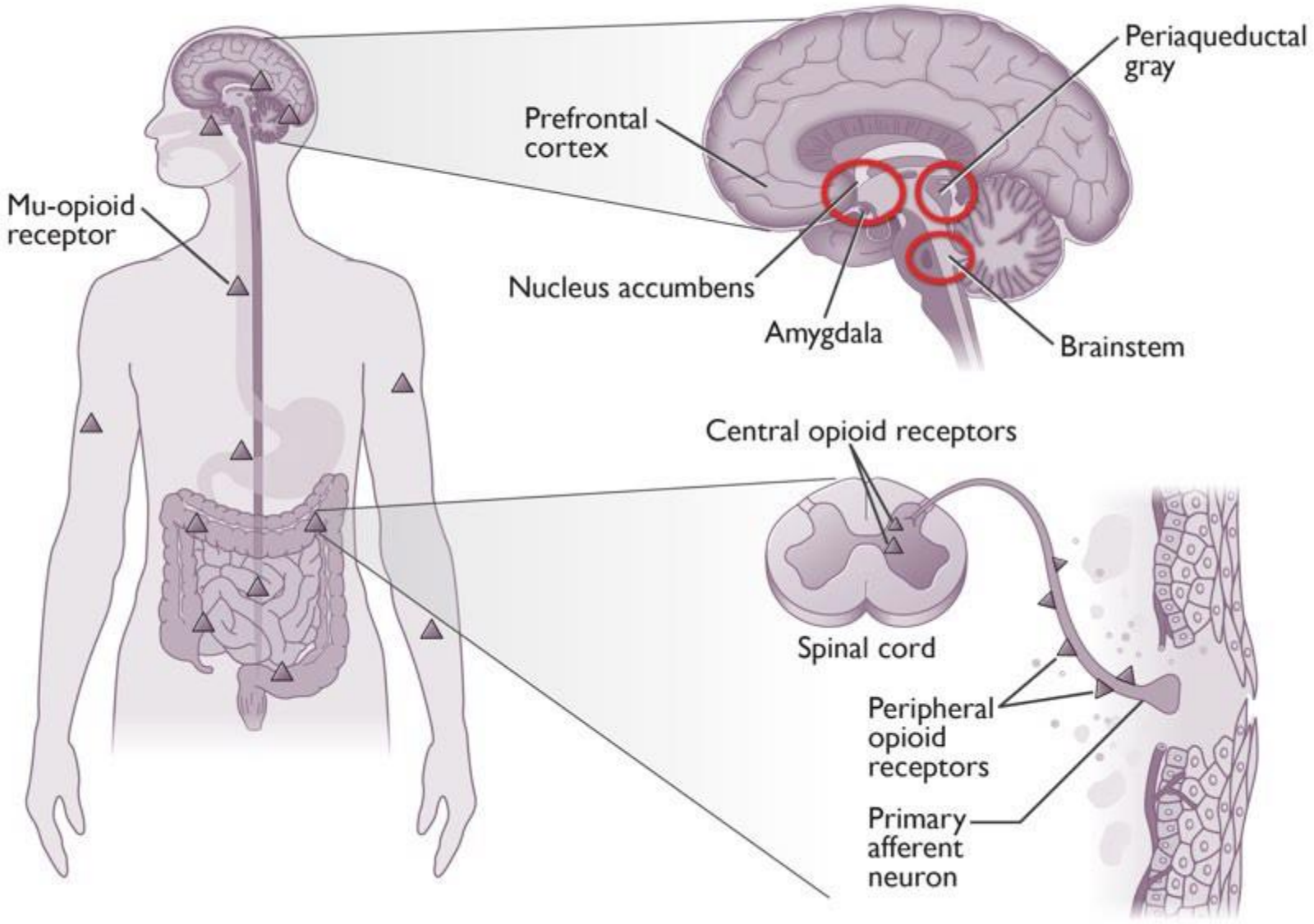
MEDIATORS OF PERIPHERAL NOCICEPTION



Feeling physical pain is vital for survival; pain is the body's early warning system.

With thanks to Allan Basbaum and David Julius, University of California, San Francisco

OPIOID RECEPTOR LOCATIONS



CO*RE

PAIN

"An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage."

—IASP (July 2020)

ACUTE	CHRONIC
• Acute pain duration of < 1 month • Sudden onset, self-limiting • Ideally resolves with healing • Triggered by tissue damage and inflammation • Has protective value • Inflammatory mediation • **Subacute**, pain that continues for 1-3 months, can become chronic	• Lasting 3 months or longer • Generally steady-state or worsening • Persists beyond normal healing period • Serves no value • Peripheral and central sensitization

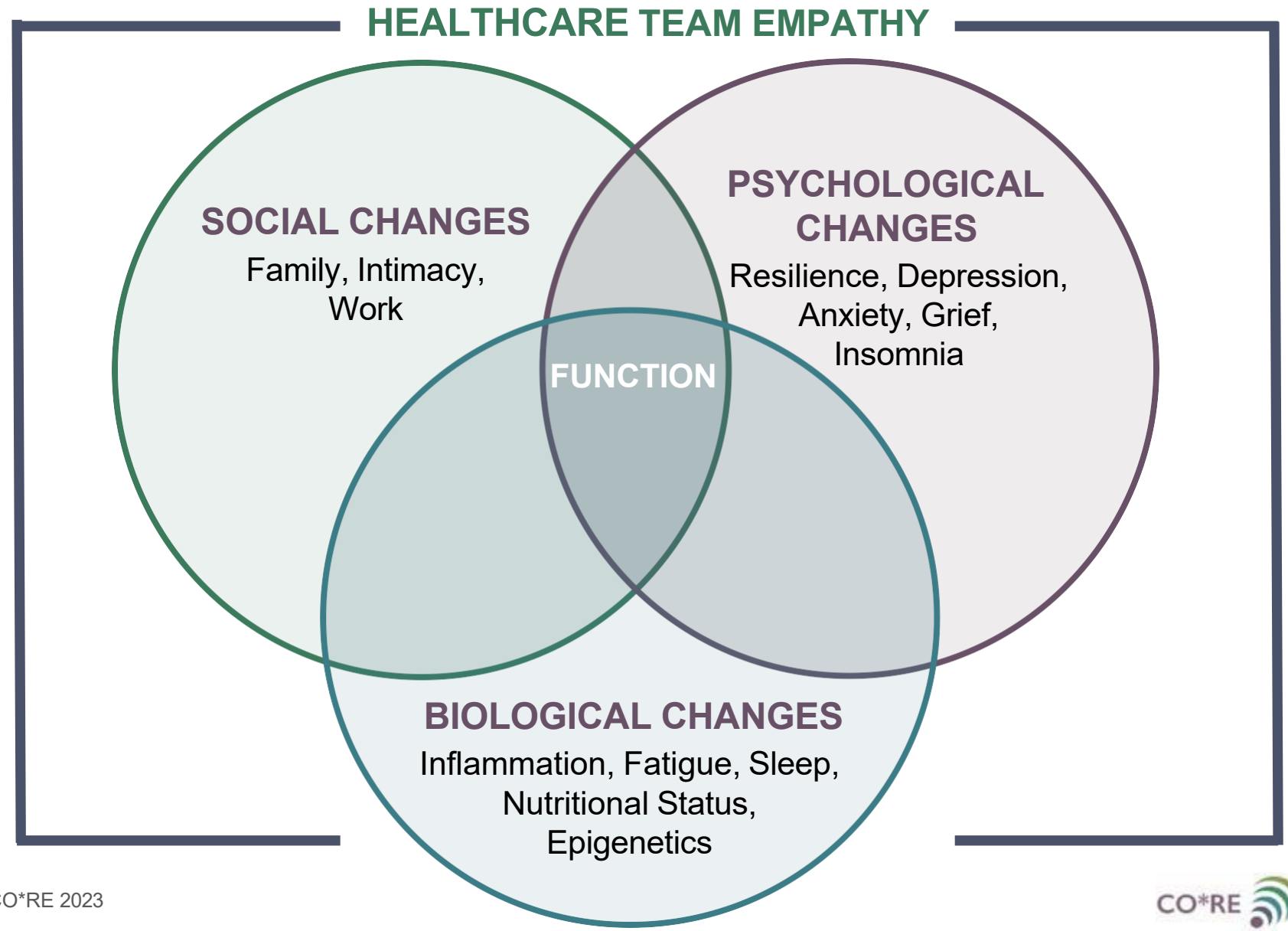
CO*RE

TYPES OF PAIN

NOCICEPTIVE / INFLAMMATORY	NOCIPLASTIC	NEUROPATHIC	MIXED TYPES (NOCICEPTIVE / NEUROPATHIC)
Pain in response to an injury or stimuli; *typically* acute	Pain that arises from altered nociceptive function; *typically* chronic	Pain that develops when the nervous system is damaged; chronic	Primary injury and secondary effects
Post-operative pain, sports injuries, arthritis, sickle cell disease, mechanical low back pain	Fibromyalgia, irritable bowel syndrome, nonspecific low back pain	Post-herpetic neuralgia, trigeminal neuralgia, distal polyneuropathy, CRPS, neuropathic low back pain	

CO*RE

THE EXPERIENCE OF PAIN: A BIOPSYCHOSOCIAL MODEL



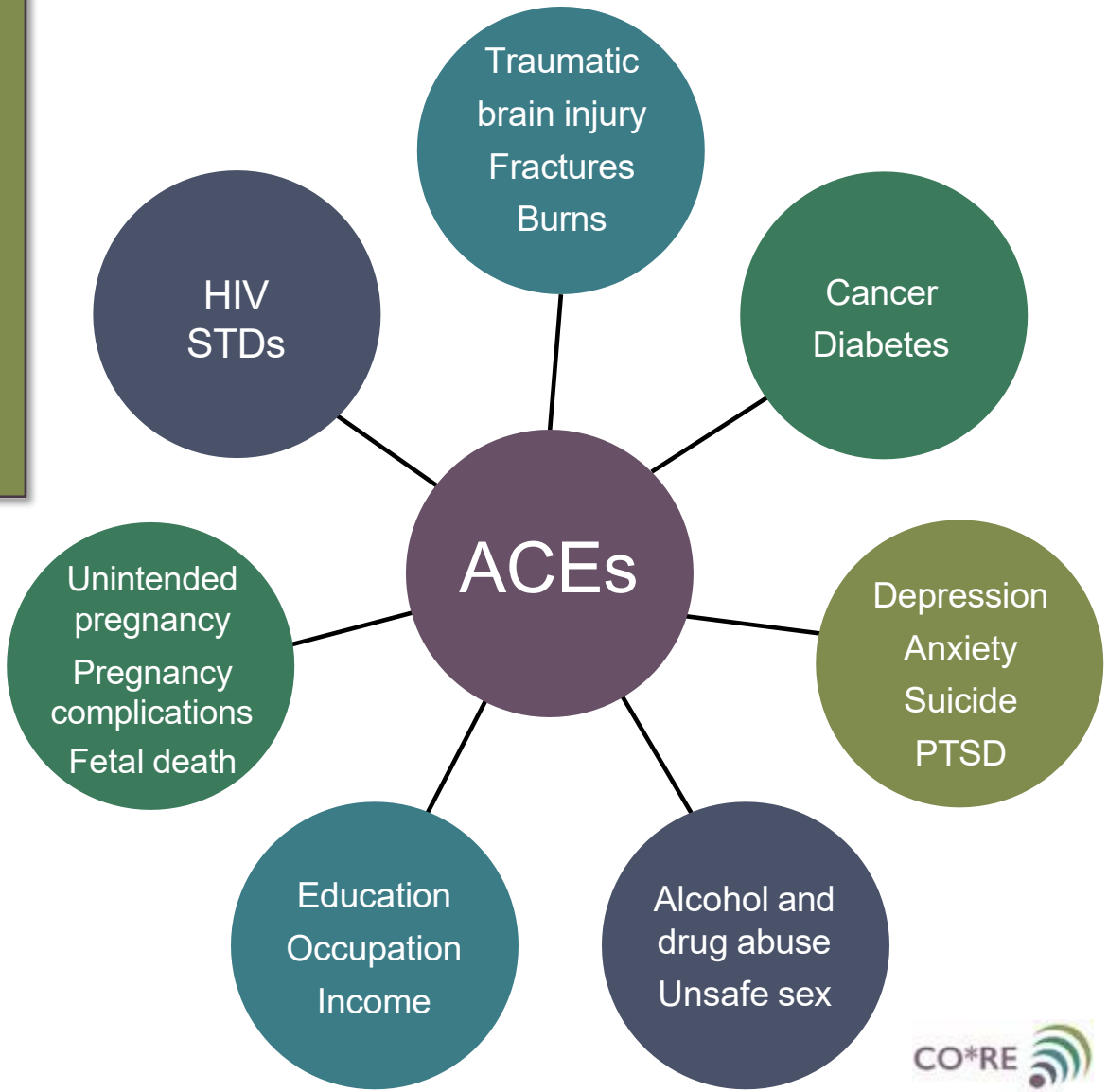
CO*RE

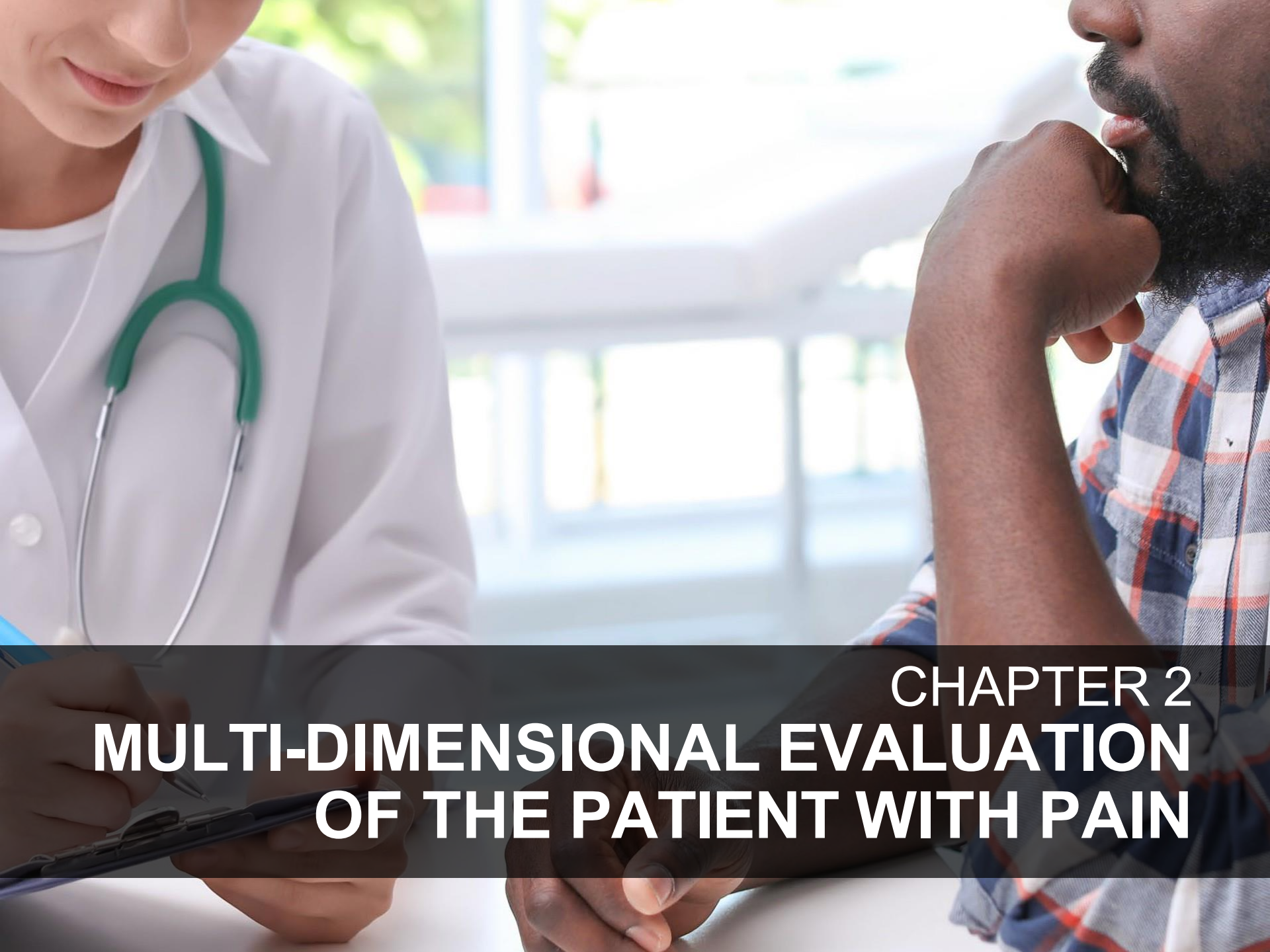
ADVERSE CHILDHOOD EXPERIENCES (ACEs)

A shift in focus…

from
"what's wrong with this patient?"

to
"what happened to this patient?"





CHAPTER 2

MULTI-DIMENSIONAL EVALUATION OF THE PATIENT WITH PAIN

HOW DO WE INITIATE DISCUSSION WITH A PATIENT?

Ask permission: “Is it okay if I ask you about alcohol or drugs?”
Reframe your approach to avoid use of stigmatizing terms:

TERMS TO AVOID	PREFERRED TERM
~~*Addiction*~~	**Substance use disorder (SUD) or opioid use disorder (OUD) [from the *DSM-5-TR*®]**
~~*Drug-seeking, aberrant/problematic behavior*~~	**Using medication not as prescribed**
~~*Addict/user*~~	**Person with a substance use disorder (SUD) or an opioid use disorder (OUD)**
~~*Dirty urine/failing a drug test*~~	**Testing positive on a urine drug screen**
~~*Abuse or habit*~~	**Misuse or “use other than prescribed”**

Source: https://nida.nih.gov/research-topics/addiction-science/words-matter-preferred-language-talking-about-addiction

HISTORY OF PRESENT ILLNESS

*Scan to view CO*RE Tools*

PRE-SCREENERS COLLECTED IN ADVANCE (PHQ-2/9, BPI)

DESCRIPTION OF PAIN

Location

Intensity

Quality

Onset/ duration

Variations/ patterns/rhythms

WHAT RELIEVES THE PAIN?

WHAT CAUSES OR INCREASES THE PAIN?

PATIENT'S LEVEL OF PAIN AND THE EFFECT OF THE PAIN ON PHYSICAL, EMOTIONAL, AND PSYCHOSOCIAL FUNCTION (eg, PEG, BPI, MPI)

Source: Hogans, B., Barreveld, A. (Eds.). *Pain Care Essentials*, NY, NY: Oxford Univ. Press.2020.

MEDICAL AND TREATMENT HISTORY

RELEVANT ILLNESSES

PAST AND CURRENT OPIOID USE

- Query your state's Prescription Drug Monitoring Program (**PDMP**) to confirm patient report
- Contact past clinicians and obtain prior medical records
- For opioids currently prescribed, note the opioid, dose, regimen, and duration
- Determine whether the patient is **opioid-tolerant**

NONPHARMACOLOGIC STRATEGIES AND EFFECTIVENESS

PHARMACOLOGIC STRATEGIES AND EFFECTIVENESS

BARRIERS TO PREVIOUS TREATMENT STRATEGIES

PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs)

A NON-PUNITIVE APPROACH TO PRESCRIBING ANALGESIC AGENTS

- Check when initiating opioid therapy regularly when continuing therapy
- Improves patient communication, education, and safety
  - Confirm PDMP information with patient; do not dismiss from care
  - Identify drugs that increase overdose risk when taken together
  - Provide potentially life-saving information and interventions (safety concerns, provide naloxone)
- Discuss safety concerns with other clinicians
- Lowers rates of prescription opioid-related hospitalization and ED visits
- Most PDMPs allow you to appoint a delegate

Multiple prescriptions from different clinicians is most predictive of opioid misuse.

Source: https://www.cdc.gov/opioids/healthcare-professionals/pdmps.html

CO*RE

OBTAIN A COMPLETE PSYCHOSOCIAL HISTORY

PSYCHOLOGICAL HISTORY

Screen for:

- Mental health diagnoses, depression, anxiety, PTSD, current treatments (using *PHQ-2, PHQ-9, GAD-7*, etc.)
- Alcohol, tobacco, and other drug use
- History of Adverse Childhood Experiences (ACEs) using *ACE Questionnaire*
- Family history of substance use disorder and psychiatric disorders

*Scan to view CO*RE Tools*

Depression and anxiety can be predictors of chronic pain

SOCIAL DETERMINANTS OF HEALTH (SDOH)

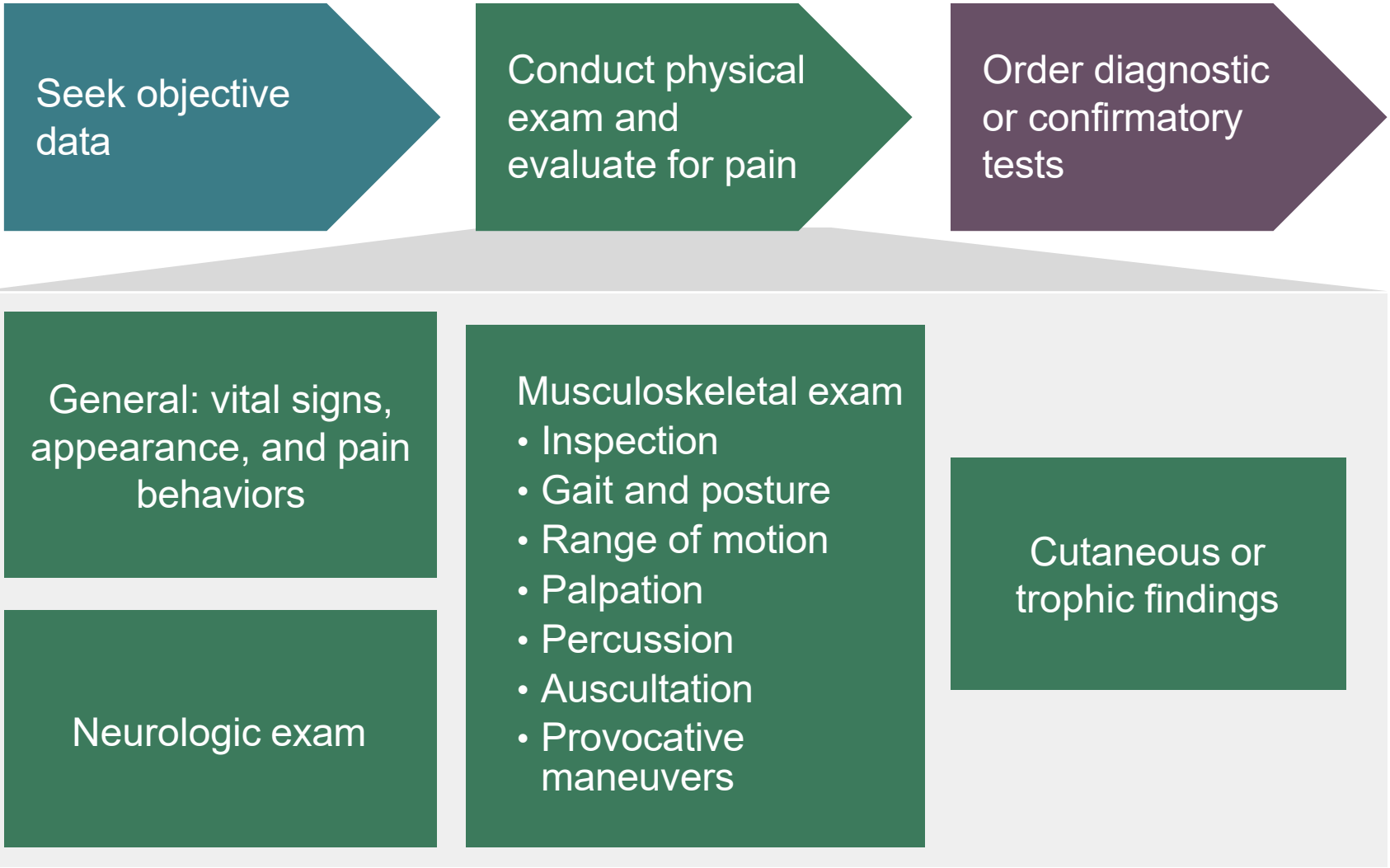
SDOH relate to pain in terms of

- Economic stability
- Education access & quality
- Health care access & quality
- Neighborhood & built environment
- Social & community context

Source: https://health.gov/healthypeople/priority-areas/social-determinants-health

CO*RE

PHYSICAL EXAM AND ASSESSMENT



Source: Hogans, B., Barreveld, A. (Eds.). Pain Care Essentials, NY, NY: Oxford Univ. Press. 2020.

PAIN ASSESSMENT TOOLBOX

http://core-rems.org/opioid-education/tools/

Pain Assessment Tools
- **BPI or 5 A's**

Functional Assessment
- **SF-36, PPS, Geriatric Assessment**

Pain intensity, Enjoyment of life, General activity
- **PEG**

Adverse Childhood Experiences Questionnaire
- **ACE**

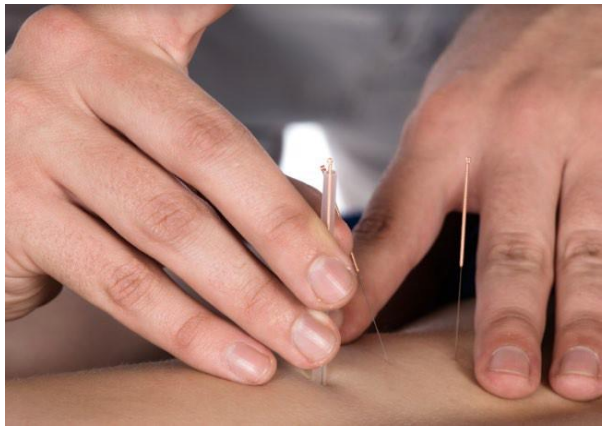
Assessment in Patients Unable to Self-Report
- **Hierarchy of Pain Assessment or PAINAD**

*Scan to view CO*RE Tools*

Psychological Measurement Tools (PHQ-2, PHQ-9, GAD-7, etc.)

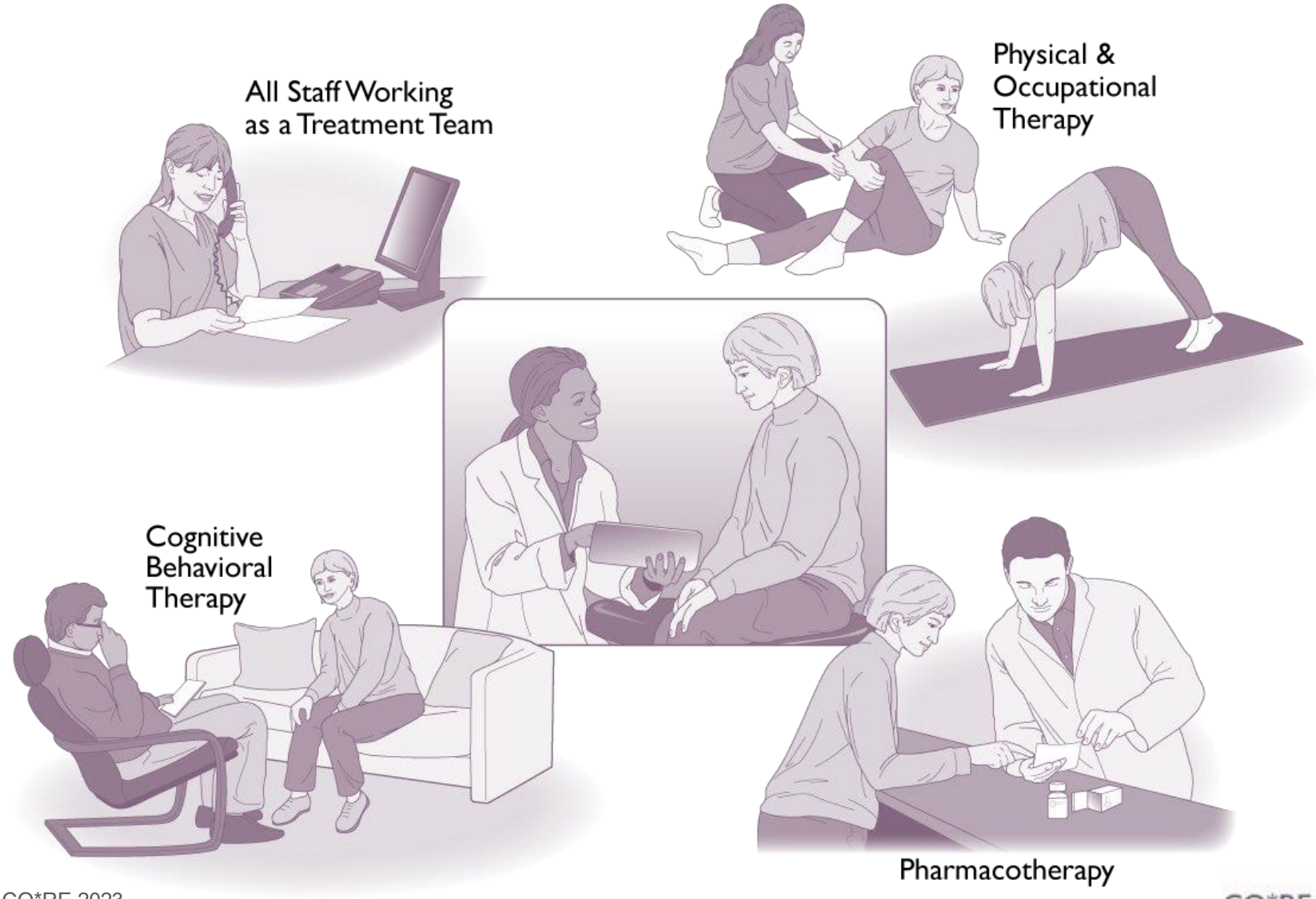
CHAPTER 3

CREATING THE PAIN TREATMENT PLAN

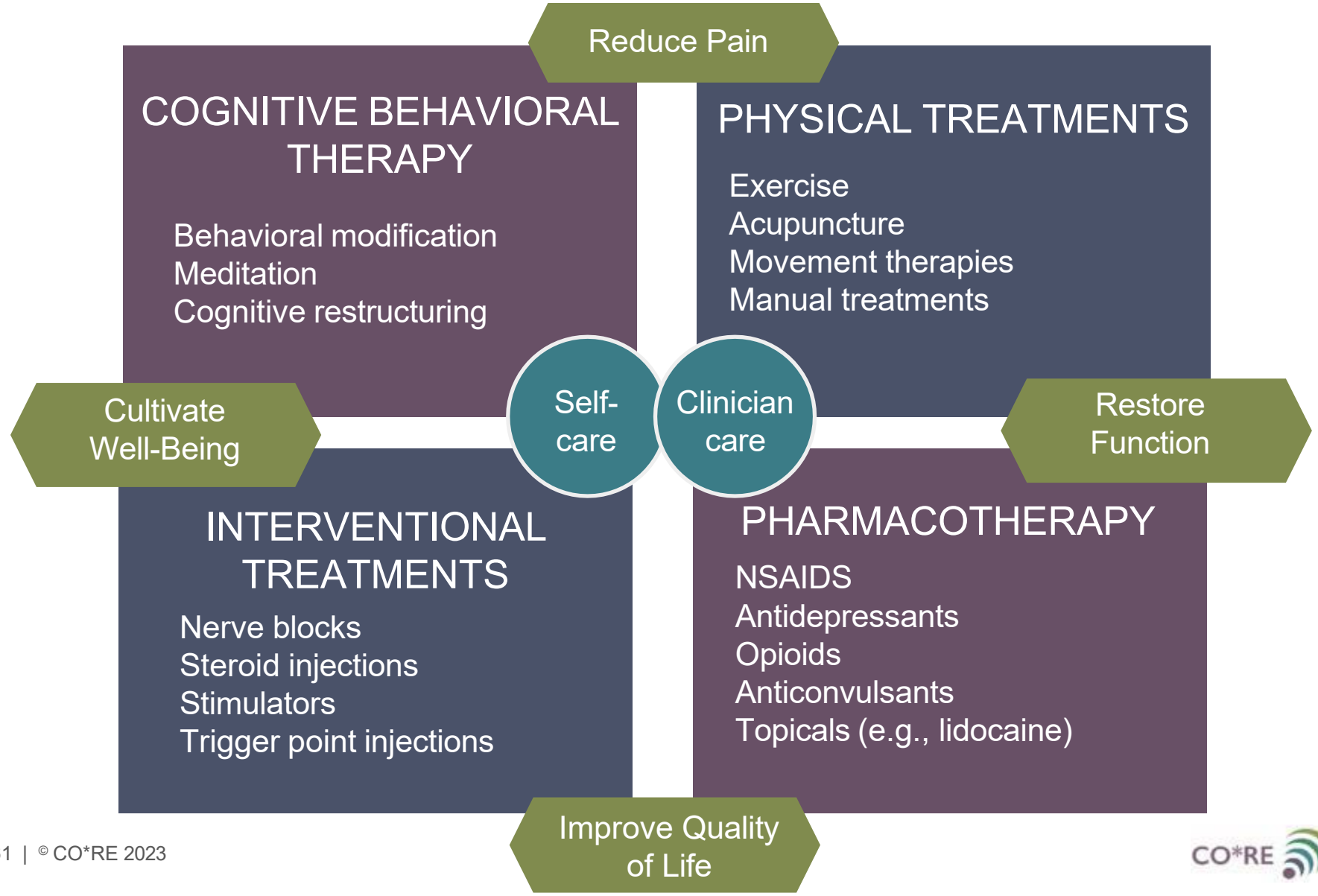


HOW IS PAIN MANAGED?

COMPONENTS OF A MULTIMODAL TREATMENT PLAN FOR PAIN

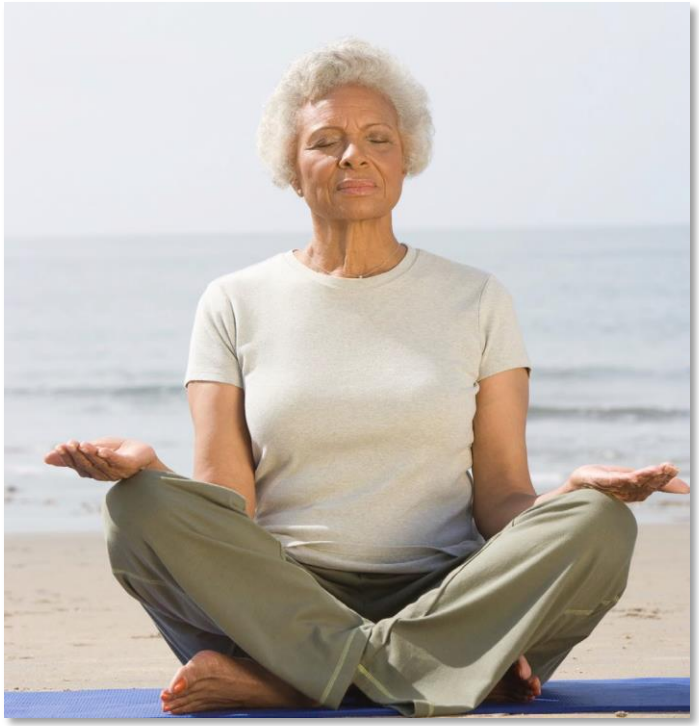


PAIN MANAGEMENT GOALS AND TREATMENT OPTIONS: A MULTIMODAL APPROACH



EVIDENCE-BASED NONPHARMACOLOGIC TREATMENTS

What is appropriate for your patient?



- Tai Chi
- Yoga
- CBT and ACT
- Acupuncture
- PT/OT/aquatic
- Mindfulness meditation
- OMT
- Massage therapy
- Chiropractic
- Neuromodulation or surgical approaches (in some situations)

CBT-cognitive behavioral therapy; ACT-acceptance commitment therapy; OMT-osteopathic manipulative therapy

Source: https://effectivehealthcare.ahrq.gov/products/noninvasive-nonpharm-pain-update/research

PHARMACOLOGIC TREATMENTS BY TYPE OF PAIN

Continue *Effective* Nonpharmacologic Options First

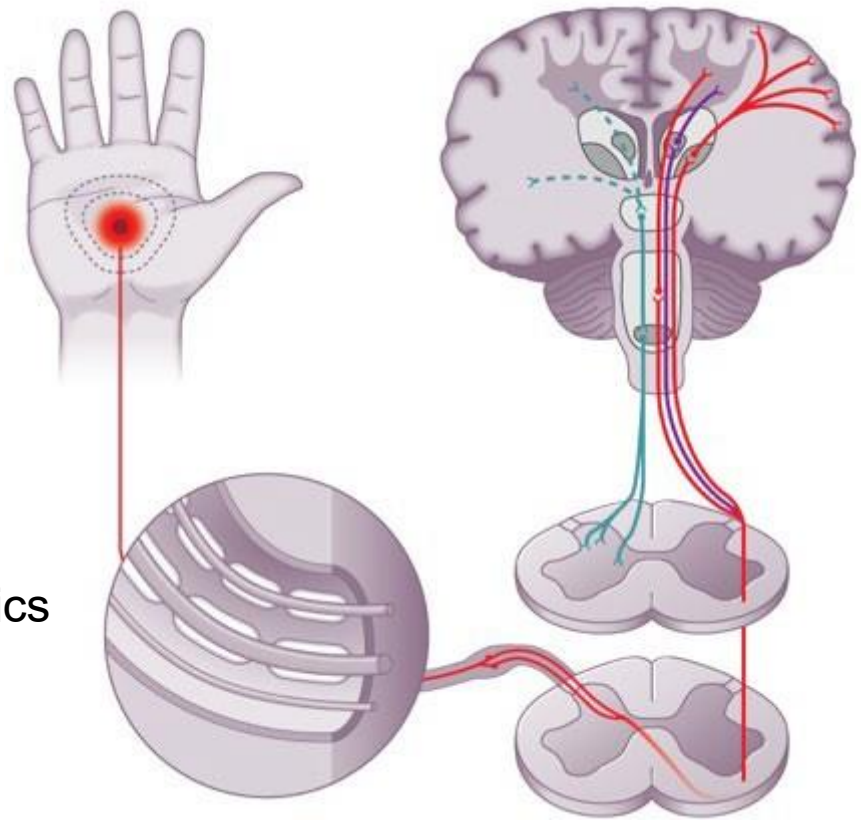
NOCICEPTIVE / INFLAMMATORY	NOCIPLASTIC	NEUROPATHIC
IR opioids Nerve blocks NSAIDs Topicals and patches	Anticholinergic Anticonvulsants TCAs and SNRIs Other serotonin agents **No Opioids**	Anticonvulsants IR and ER/LA opioids Gabapentinoids Nerve blocks TCAs and SNRIs Transdermal opioids

CO*RE

POTENTIAL SITES OF ACTION FOR ANALGESIC AGENTS

Peripherally Mediated Pain:

- Acetaminophen
- Anticonvulsants
- NSAIDs
- Opioids
- Topical anesthetics

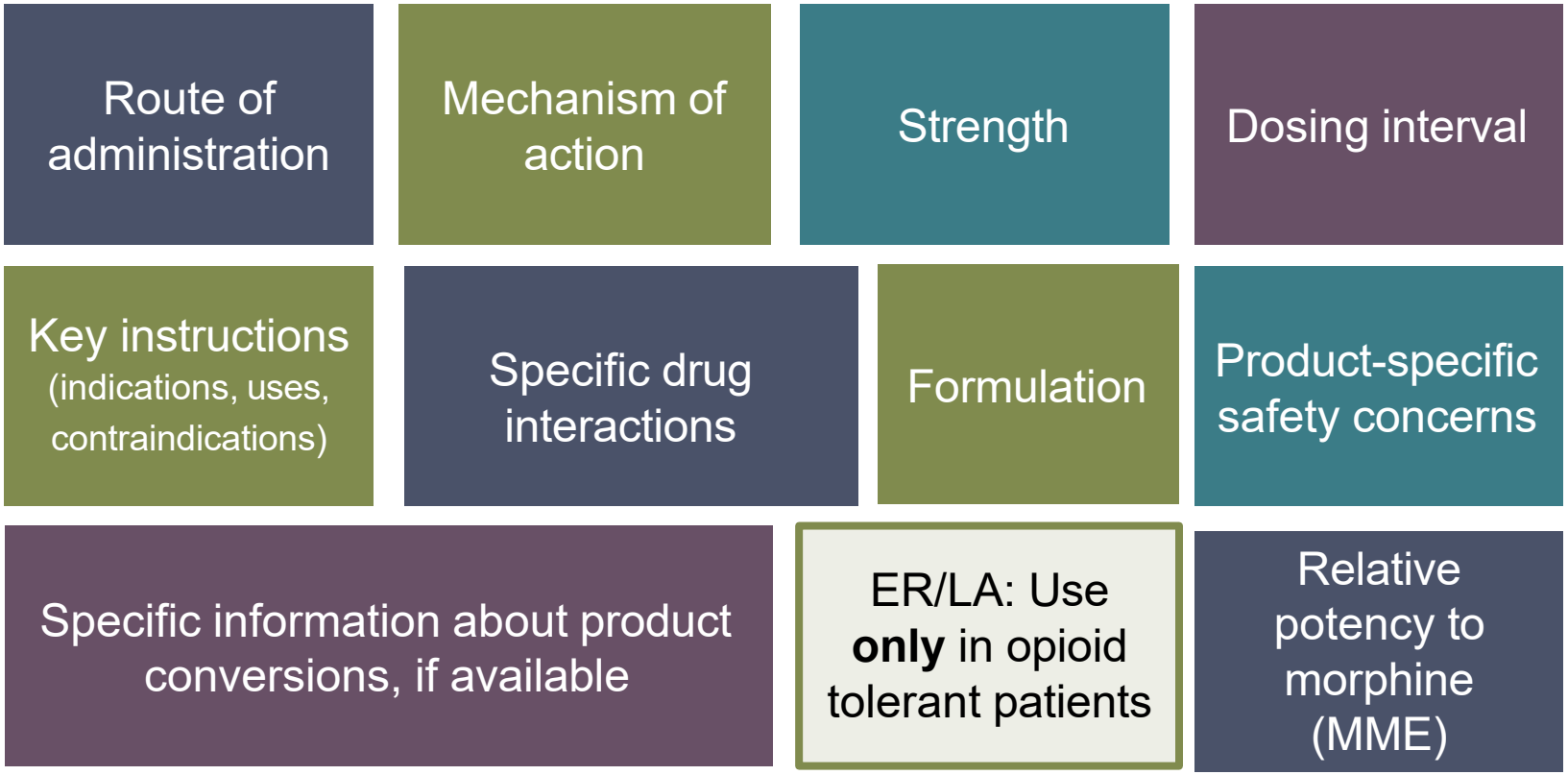


Centrally Mediated Pain:

- Alpha-2 agonists
- Anticonvulsants
- Ca^{+} channel antagonists
- NMDA RAs
- Opioids
- TCA/SNRI antidepressants

Most commonly, pain conditions are a combination of peripherally and centrally mediated processes

DRUG CHARACTERISTICS TO CONSIDER BEFORE PRESCRIBING



Opioid product information available at https://opioidanalgesicrems.com/products.html

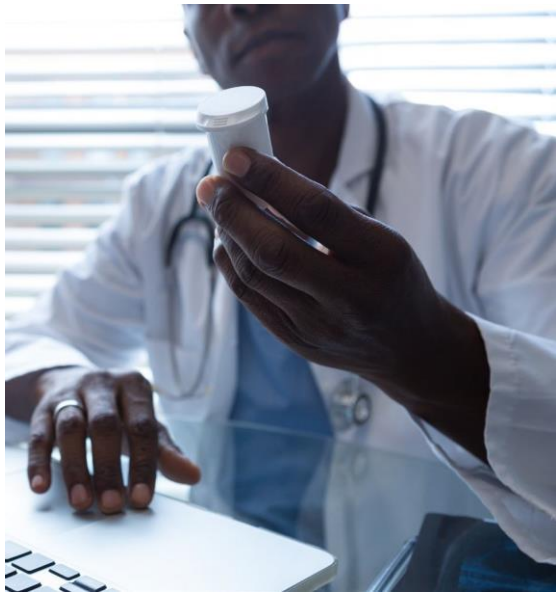
- **Immediate Release (IR)**: rapid onset of analgesia, relatively short duration of effect
- **Extended Release/Long-Acting (ER/LA)**: potentially longer onset of action, longer duration of effect; formulation allows for QD or BID dosing; less frequent dosing

WHEN TO CONSIDER A THERAPEUTIC TRIAL OF IR OPIOID

Patient has failed to adequately respond to non-opioid and nonpharmacological interventions

Patient has moderate to severe nociceptive or neuropathic pain

Potential benefits are likely to outweigh risks



- CDC Guideline recommendations **do not apply** to pain related to **sickle cell disease** or **cancer** or to patients receiving **palliative or end-of-life** care (separate guidelines apply to some). There are **differences in benefits, risks,** and expected outcomes for these patients compared to other patients with chronic pain.

Sources: Chou R, et al. J Pain. 2009;10:113-130. Department of Veterans Affairs, Department of Defense & VA/DoD Clinical Practice Guideline for Management of Opioid Therapy for Chronic Pain. 2017 & CDC Guideline: https://www.cdc.gov/mmwr/volumes/71/rr/rr7103a1.htm

RISKS VERSUS BENEFITS OF PRESCRIBED OPIOIDS

POTENTIAL RISKS

- Life-threatening respiratory depression/overdose, death
- SUD/OUD (assess using ORT-OUD or other validated tool)
- Diversion
- Inadvertent exposure to family and pets
- Interactions with other meds and substances
- Neonatal abstinence syndrome
- Physiologic dependence and withdrawal

POTENTIAL BENEFITS

- Analgesia
- Option for patients with contraindications for non-opioid analgesics
- Relieves suffering
- May improve function and quality of life

CO*RE

ASSESS RISK FOR OPIOID USE DISORDER

TOOLS FOR PATIENTS CONSIDERED FOR OPIOID THERAPY
ORT-OUD Opioid Risk Tool
SOAPP® Screener and Opioid Assessment for Patients with Pain
DIRE Diagnosis, Intractability, Risk, and Efficacy score

TOOLS FOR SUBSTANCE USE DISORDER
CAGE-AID Cut down, Annoyed, Guilty, Eye-Opener tool, Adapted to Include Drugs
TAPS Tobacco, Alcohol, Prescription Medication and Other Substances
DAST Drug Abuse Screening Test
CTQ Childhood Trauma Questionnaire
ACEs Adverse Childhood Experiences

*Scan to view CO*RE Tools*

A CLOSER LOOK AT THE ORT-OUD

Mark each box that applies	YES	NO
Family history of substance abuse		
Alcohol	1	0
Illegal drugs	1	0
Rx drugs	1	0
Personal history of substance abuse		
Alcohol	1	0
Illegal drugs	1	0
Rx drugs	1	0
Age between 16-45 years	1	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	1	0
Depression	1	0
Scoring totals		

Source: Cheatle, M., Compton, P.A., et al. J Pain 2019; Jan 26.

Substance use disorder history does not prohibit treatment with opioids but may require additional monitoring and expert consultation or referral.

Scoring:

- **≤ 2: low risk**
- **≥ 3: high risk**

Scan to view ORT-OUD Video

CATEGORIZATION OF OPIOIDS

Scan to view DEA Drug Scheduling

NATURALLY OCCURRING OPIATES	SEMI-SYNTHETIC OPIOIDS	SYNTHETIC OPIOIDS
Codeine Morphine	Buprenorphine Hydrocodone Hydromorphone Oxycodone Oxymorphone	Alfentanil Fentanyl Methadone Remifentanil Tapentadol Tramadol

AGONISTS	PARTIAL AGONISTS	ANTAGONISTS
Codeine Methadone Morphine Oxycodone	Buprenorphine Nalbuphine	Naloxone Nalmefene Methylnaltrexone* Naloxogel*

*These represent PAMORA: peripherally-acting mu opioid receptor antagonist

OPIOID SIDE EFFECTS AND ADVERSE EVENTS

SIDE EFFECTS	ADVERSE EVENTS
Respiratory depression	Death
GI effects: dry mouth, nausea/vomiting, **opioid-induced constipation** (most common; mitigate!)	Addiction
Myoclonus (twitching or jerking)	Overdose
Sedation, cognitive impairment	Hospitalization
Sweating, miosis, urinary retention	Disability or permanent damage
Allergic reactions	Falls or fractures
Hypogonadism	Opioid-induced hyperalgesia
Tolerance, physical dependence	

Prescribers should report serious AEs and medication errors to the FDA: https://www.fda.gov/media/76299/download or 1-800-FDA-1088

CO*RE

OPIOID-INDUCED RESPIRATORY DEPRESSION

MORE LIKELY TO OCCUR:

- In older, cachectic, or debilitated patients
- If given concomitantly with other drugs that depress respiration (such as benzodiazepines*)
- In patients who are opioid-naïve or have just had a dose increase
- In patients with conditions causing respiratory compromise (eg, obstructive sleep apnea)
- In patients with organ dysfunction

HOW TO REDUCE RISK:

- Ensure proper dosing and titration
- **Do not overestimate** dose when converting dosage from another opioid product
  - Can result in fatal overdose with first dose
- Avoid co-prescribing benzodiazepines*
- Instruct patients to swallow tablets/capsules whole
  - Dose from cut, crushed, dissolved, or chewed tablets/capsules may be fatal, particularly in opioid-naïve individuals

***Greatest risk of respiratory depression**

DRUG INTERACTIONS COMMON TO OPIOIDS

Other CNS Depressants

- Increased risk of respiratory depression, hypotension, profound sedation, or coma
- Reduce initial dose

Partial Agonists* or Mixed Agonist/Antagonists†

- Use caution with full opioid agonist
- May reduce analgesic effect and/or precipitate withdrawal

Skeletal Muscle Relaxants

- Concurrent use may enhance neuromuscular blocking action and increase respiratory depression

Anticholinergic Medication

- Concurrent use increases risk of urinary retention and severe constipation
- May lead to paralytic ileus

*Buprenorphine; †Pentazocine, nalbuphine, butorphanol

FOR SAFER USE: KNOW DRUG INTERACTIONS, PHARMACODYNAMICS, AND PHARMACOKINETICS

CNS depressants can potentiate sedation and respiratory depression
(e.g., benzodiazepines, gabapentin)

Some ER/LA products rapidly release opioid (dose dump) when exposed to alcohol
Some drug levels may increase without dose dumping

Opioid use w/ MAOIs may increase respiratory depression
Certain opioids with MAOIs can cause serotonin syndrome
(e.g., tramadol)

Opioid use can reduce efficacy of diuretics
Inducing release of antidiuretic hormone

Many opioids can prolong QTc interval, check the PI; methadone requires extra caution

Drugs that inhibit or induce CYP enzymes can increase or lower blood levels of some opioids

OPIOIDS AND CYP450 ENZYME INTERACTIONS

Metabolism of several commonly used opioids occurs through the cytochrome P450 system

Be aware of potential inhibitors (e.g., macrolides, azole antifungals) and inducers (e.g., carbamazepine)

Genetic and phenotypic variations in patient response to certain opioids

Refer to product-specific information in the drug package insert before prescribing

Source: https://dailymed.nlm.nih.gov/dailymed/index.cfm

TRANSDERMAL/TRANSMUCOSAL DOSAGE FORMS

Do not cut, damage, chew, or swallow

Prepare skin: clip (not shave) hair and wash area with water

Rotate location of application

Do not apply buccal film products if film is cut, damaged, or changed in any way—use the entire film

Note that metal foil backings are not safe for use in MRIs

Monitor patients with fever for signs or symptoms of increased opioid exposure

Note that exertion or exposure to external heat can lead to fatal overdose


SPECIAL
POPULATIONS

OLDER ADULTS

RISK FOR RESPIRATORY DEPRESSION

- Age-related changes in distribution, metabolism, excretion; absorption less affected

ACTIONS

- Monitor
  - Initiation and titration
  - Concomitant medications (polypharmacy)
  - Falls risk, cognitive change, psychosocial status
- Reduce starting dose to 1/3 to 1/2 the usual dosage in debilitated, non-opioid-tolerant patients
- Start low, go slow, but GO
- Routinely initiate a bowel regimen
- Patient and caregiver reliability/risk of diversion

Sources: American Geriatrics Society Panel on the Pharmacological Management of Persistent Pain in Older Persons. J Am Geriatr Soc. 2009;57:1331-46; Chou R, et al. J Pain. 2009;10:113-30.

WOMEN OF CHILDBEARING POTENTIAL

Neonatal opioid withdrawal syndrome is a potential risk of opioid therapy

GIVEN THIS POTENTIAL RISK, CLINICIANS SHOULD:

- Discuss family planning, contraceptives, breastfeeding plans with patients
- Counsel women of childbearing potential about risks and benefits of opioid therapy during pregnancy and after delivery
- Encourage minimal/no opioid use during pregnancy, unless potential benefits outweigh risks to fetus
- Refer to a qualified clinician who will ensure appropriate treatment for the baby

Perform universal screening to avoid neonatal opioid withdrawal syndrome (NOWS)

For women using opioids daily, ACOG recommends buprenorphine or methadone

ACOG-American College of Obstetricians and Gynecologists.

Sources: Chou R, et al. J Pain. 2009;10:113-30; ACOG Committee on Obstetric Practice, August 2017

PEDIATRIC CONSIDERATIONS

Scan to view AAP resources

- **HANDLE WITH CARE: JUDICIOUS AND LOW-DOSE USE OF IR FOR BRIEF THERAPY**
- **THE SAFETY AND EFFECTIVENESS OF MOST OPIOIDS ARE UNESTABLISHED**
  - Pediatric analgesic trials pose challenges
  - Transdermal fentanyl approved in children ≥2 years
  - Oxycodone ER dosing changes for children ≥11 years
- **ER/LA OPIOID INDICATIONS ARE PRIMARILY LIFE-LIMITING CONDITIONS**
- **WHEN PRESCRIBING ER/LA OPIOIDS TO CHILDREN:**
  - Consult pediatric palliative care team or pediatric pain specialist or refer to a specialized multidisciplinary pain clinic
- **ADOLESCENTS ages 12-21: Identify and treat for OUD *(use SBIRT)***

Scan to view SBIRT resource

SBIRT-Screening, Brief Intervention, Referral to Treatment.

Sources: Berde CB, et al. *Pediatrics.* 2012;129:354-364; Gregoire MC, et al. Pain Res Manag 2013;18:47-50; Mc Donnell C. Pain Res Manag. 2011;16:93-98; Slater ME, et al. Pain Med. 2010;11:207-14. https://publications.aap.org/pediatrics/article/138/1/e20161210/52573/Substance-Use-Screening-Brief-Intervention-and https://www.aap.org/en/patient-care/substance-use-and-prevention/resources-to-address-the-opioid-epidemic/

OTHER POPULATIONS NEEDING SPECIAL TREATMENT CONSIDERATIONS

Persons with…

- Sleep disorders or sleep-disordered breathing (sleep apnea)
- Dementia/nonverbal patients
- Obesity
- Renal/hepatic impairment
- Psychiatric disorders
- Life-limiting illness
- Substance use disorder

INFORMED CONSENT

When initiating a pain treatment plan, confirm patient understanding of informed consent to establish:

OPTIMIZING PATIENT CARE THROUGH TELEHEATH

New CO*RE CE/CME Module

- Series of four short videos
- Help HCPs conduct successful telehealth patient visits
- Available online **https://learningipma.org**

PATIENT PROVIDER AGREEMENT (PPA)

Reinforce Expectations For Appropriate And Safe Opioid Use

- Clarify treatment plans & goals
- One prescriber
- Consider one pharmacy
- Safeguards
  - Do not store in medicine cabinet
  - Keep locked (medication safe)
  - Do not share or sell
- Instructions for disposal when no longer needed
- Prescriber notification for any event resulting in a pain medication prescription
- Follow-up plan
- Monitoring
  - Random urine drug test (UDT) & pill counts
- Refill procedure
- Identify behaviors indicating need for discontinuation
- Exit strategy
- Signed by both

PATIENT PROVIDER AGREEMENT NONADHERENCE

Behavior outside the boundaries of agreed-on treatment plan

- Unsanctioned dose escalations or other noncompliance with therapy on 1 or 2 occasions
- Unapproved use of the drug to treat another symptom
- Openly acquiring similar drugs from other medical sources
- Multiple dose escalations or other noncompliance with therapy despite warnings
- Prescription forgery
- Obtaining prescription drugs from nonmedical sources

Any of the above behaviors merits further inquiry: proceed with caution

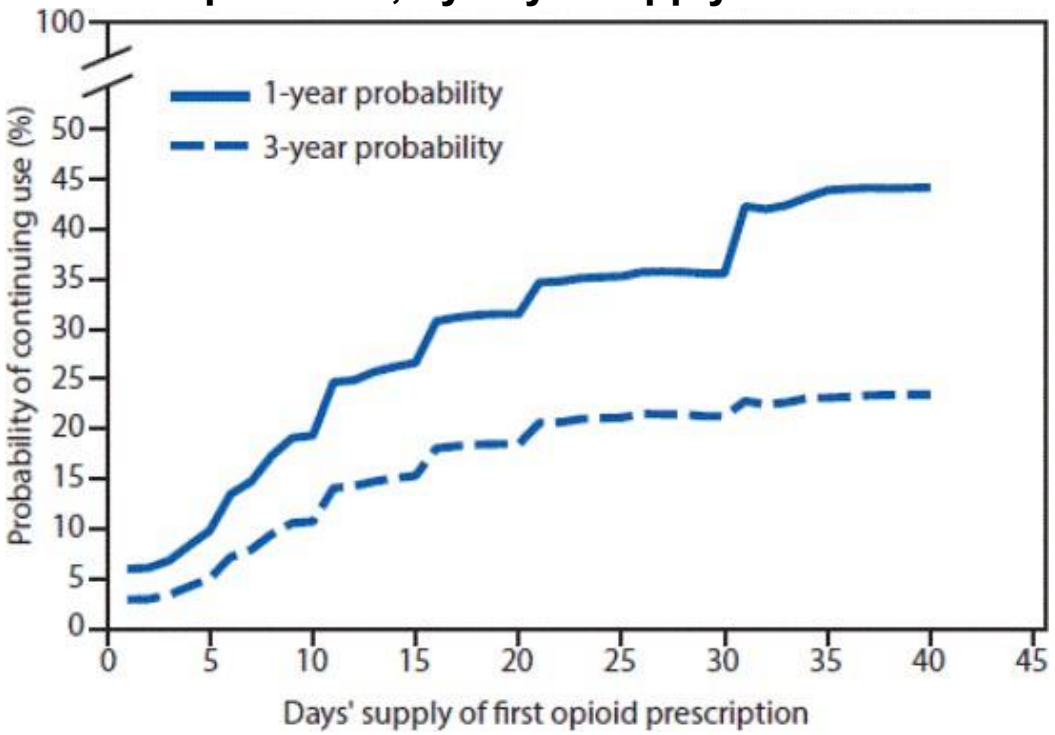
CHAPTER 4

MANAGING PATIENTS ON OPIOID ANALGESICS

INITIATING IR OPIOIDS

- Prescribe the **lowest effective dose** for the **shortest period of time** based on the individual patient's condition
- Always include dosing instructions, including daily maximum
- Be aware of interindividual variability of response
- Have PPA, baseline UDT, and informed consent in place
- Co-prescribe naloxone and stimulant laxative

One- and 3-year probabilities of continued opioid use, by days' supply of first Rx



- Re-evaluate risks/benefits within 1–4 weeks (could be as soon as 3–5 days) of initiation or dose escalation
- Re-evaluate risks/benefits every 1–3 months; if benefits do not outweigh harms, optimize other therapies and work to taper and discontinue

Source: https://www.cdc.gov/mmwr/volumes/66/wr/mm6610a1.htm

CO*RE

ONGOING MANAGEMENT OF PATIENTS ON OPIOID ANALGESICS

PERIODIC, CONTINUAL ASSESSMENT

- Is the patient making progress toward functional goals?
- Reassess to identify the underlying source of pain
- Reset goals if required or indicated; develop reasonable expectations
- Ask if patient is willing to engage with other modalities
- Monitor for breakthrough pain or comorbid conditions that may arise
- Review adverse events/side effects at each visit
  - Evaluate bowel function
  - Screen for endocrine function as needed
  - Implement opioid rotation, as indicated

ONGOING MANAGEMENT OF PATIENTS ON OPIOID ANALGESICS (cont.)

MONITORING FOR SAFETY

- Check Prescription Drug Monitoring Program (PDMP)
- Use urine drug testing (UDT)
- Reassess risk of substance use disorder (SUD) and/or OUD
- Monitor adherence to the treatment plan
  - Medication reconciliation
  - Evaluate for nonadherence

CONSIDERATIONS FOR TREATMENT MODIFICATION

- Continue IR
- Taper and discontinue (when opioid therapy is no longer necessary)
- Transition to ER/LA

TRANSITIONING FROM IR TO ER/LA OPIOID OPTIONS

PRIMARY REASONS

- Maintain stable blood levels (steady state plasma)
- Longer duration of action
- Multiple IR doses needed to achieve effective analgesia
- Poor analgesic efficacy despite dose titration
- Less sleep disruption

OTHER POTENTIAL REASONS

- Patient desire or need to try a new formulation
- Cost or insurance issues
- Adherence issues
- Change in clinical status requiring an opioid with different pharmacokinetics
- Problematic drug-drug interactions

CO*RE

CONSIDERATIONS FOR CHANGE FROM IR TO ER/LA OPIOIDS

DRUG SELECTION IS CRITICAL

Some ER/LA opioids or dosage forms are only recommended for opioid tolerant patients (ER/LA in opioid-naïve patients is controversial)

- ANY strength of transdermal fentanyl
- Certain strengths/doses of other ER/LA products (check drug prescribing information)
- Consider transition to buprenorphine (patch, film)

MONITOR PATIENTS CLOSELY FOR RESPIRATORY DEPRESSION

- Especially within 24–72 hours of initiating therapy and increasing dosage

INDIVIDUALIZE DOSAGE BY TITRATION BASED ON EFFICACY, TOLERABILITY, AND PRESENCE OF ADVERSE EVENTS

- Check ER/LA opioid product PI for minimum titration intervals
- Supplement with IR analgesics (opioid and non-opioid) if pain is not controlled during titration

Sources: Chou R, et al. J Pain. 2009;10:113-130; FDA. Education Blueprint Healthcare Providers Involved in the Treatment and Monitoring of Patients with Pain 09/2018, https://www.accessdata.fda.gov/drugsatfda_docs/rems/Opioid_analgesic_2018_09_18_FDA_Blueprint.pdf; https://pubmed.ncbi.nlm.nih.gov/31917418/, https://www.pbm.va.gov/PBM/AcademicDetailingService/Documents/Academic_Detailing_Educational_Material_Catalog/IB_1497_Provider_BupChronicPain.pdf

EMERGENCE OF OPIOID-INDUCED HYPERALGESIA

- An increased sensitivity to pain
- Usually occurs at high MME dosages and over long periods of time
- A physiological phenomenon that can happen to anyone
- Consider this explanation if:
  - Pain increases despite dose increases
  - Pain appears in new locations
  - Patient becomes more sensitive to painful stimuli
  - Patient is not improving in the absence of underlying cause or disease progression

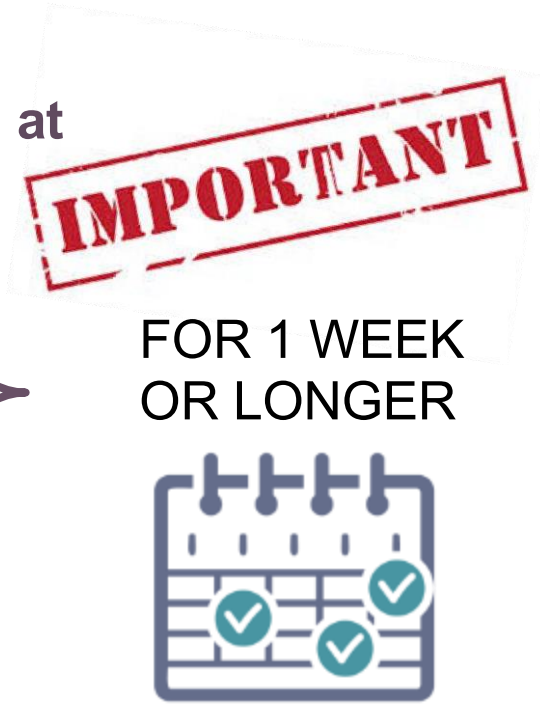
Source: Yi P, Pryzbylkowski P. Opioid induced hyperalgesia. Pain Medicine 2015; 16: S32-S36

OPIOID TOLERANCE

If opioid tolerant, still use caution at higher doses

Patients considered opioid tolerant are taking at least:

- 60 mg oral morphine/day
- 30 mg oral oxycodone/day
- 8 mg oral hydromorphone/day
- 25 mg oral oxymorphone/day
- An equianalgesic dose of another opioid



Also use caution when rotating a patient on an IR opioid to a different ER/LA opioid

Source: The Opioid Analgesics Risk Evaluation & Mitigation Strategy product search, https://opioidanalgesicrems.com/products.html

OPIOID TOLERANCE VERSUS PHYSICAL DEPENDENCE

TOLERANCE

- Occurs when increased dose is needed to maintain the functional status no longer achieved by current dose
- Remember CNS and respiratory depression can develop with dose increase

PHYSICAL DEPENDENCE

- Occurs when an individual only functions normally in the presence of the substance
- Abrupt discontinuation or dosage decrease causes uncomfortable symptoms of withdrawal

Both **tolerance** and **physical dependence** are physiological adaptations to chronic opioid exposure and **DO NOT** equal addiction or opioid use disorder

CO*RE

OPIOID ROTATION

DEFINITION

A change from an existing opioid regimen to another opioid with the goal of improving therapeutic outcomes or to avoid AEs attributed to the existing drug

RATIONALE

Used when differences in pharmacologic or other effects make it likely that a switch will improve outcomes

- Effectiveness and AEs of different mu-opioids vary among patients
- Patient tolerant to first opioid might have improved analgesia from second opioid at a dose lower than calculated from an equianalgesic dosing table (EDT)

Sources: Fine PG, et al. J Pain Symptom Manage. 2009;38:418-425; Knotkova H, et al. J Pain Symptom Manage. 2009;38:426-439; Pasternak GW. Neuropharmacol. 2004;47(suppl 1):312-323.

EQUIANALGESIC DOSING TABLES (EDTs)

Many different versions:

- Published
- Online calculators
- Smartphone apps

Vary in terms of:

- Equianalgesic values
- Whether ranges are used
- **Which opioids are included:** May or may not include transdermal opioids, rapid-onset fentanyl, ER/LA opioids, or opioid agonist-antagonists

CO*RE

START WITH AN EDT FOR ADULTS

Practice Example!

Transition an 80 y/o patient from morphine 180 mg/day to oxycodone

	EQUIANALGESIC DOSE		USUAL STARTING DOSE	
DRUG	SC/IV	PO	PARENTERAL	PO
Morphine	10 mg	30 mg	2.5–5 mg SC/IV q3–4hr (1.25–2.5 mg)	5–15 mg q3–4hr (IR or oral solution) (2.5–7.5 mg)
Oxycodone	NA	20 mg	NA	5–10 mg q3–4hr (2.5 mg)
Hydrocodone	NA	30 mg	NA	5 mg q3–4hr (2.5 mg)
Hydromorphone	1.5 mg	7.5 mg	0.2–0.6 mg SC/IV q2–3hr (0.2 mg)	1–2 mg q3–4hr (0.5–1 mg)

CO*RE

MU-OPIOID RECEPTORS AND INCOMPLETE CROSS TOLERANCE

MU-OPIOIDS BIND TO MU RECEPTORS

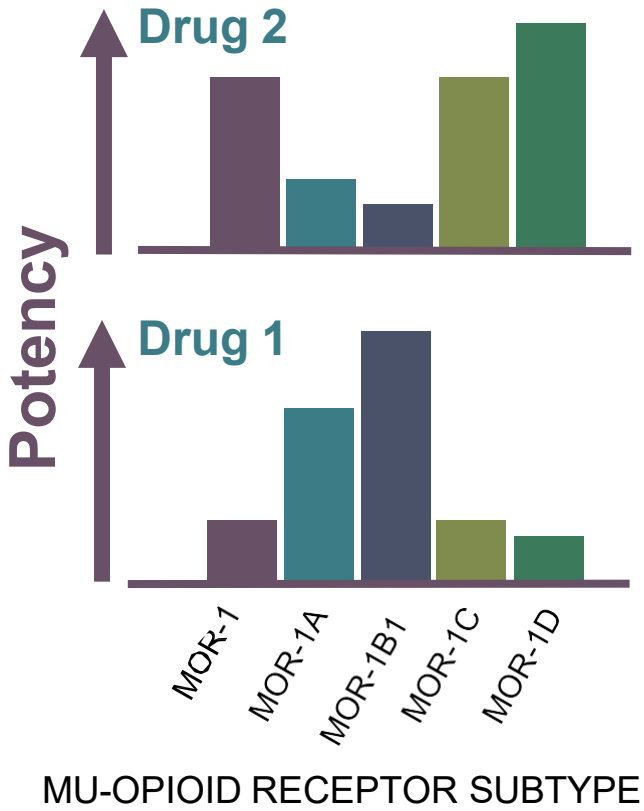
MANY MU RECEPTOR SUBTYPES

Mu-opioids produce **subtly different** pharmacologic responses based on distinct activation profiles of mu receptor subtypes

MAY HELP EXPLAIN:

Interpatient variability in response to mu-opioids

Incomplete cross tolerance among mu-opioids



GUIDELINES FOR OPIOID ROTATION

Practice Example!

Transition an 80 y/o patient from morphine 180 mg/day to oxycodone

Calculate equianalgesic dose of new opioid from EDT

REDUCE CALCULATED EQUIANALGESIC DOSE BY 25%–50%*

SELECT % REDUCTION BASED ON CLINICAL JUDGMENT

CLOSER TO 50% REDUCTION

IF PATIENT…

- Is receiving a relatively high dose of current opioid regimen
- **Is an older adult** or medically frail

CLOSER TO 25% REDUCTION

IF PATIENT…

- Does not have these characteristics
- Is changing route of administration

*75%–90% reduction for methadone

CO*RE

GUIDELINES FOR OPIOID ROTATION *(continued)*

IF SWITCHING TO **METHADONE**:

- Do **not** give methadone to opioid-naïve patients
- Standard equianalgesic dosing tables are less helpful in opioid rotation to methadone
- For opioid tolerant patients, methadone doses should **not** exceed 30–40 mg/day upon rotation
  - Consider inpatient monitoring; EKG monitoring controversial

IF SWITCHING TO **BUPRENORPHINE**:

Consider cross-taper with buccal film or transdermal patch; see guidelines for switch to higher dose

IF SWITCHING TO **TRANSDERMAL FENTANYL**:

Calculate dose conversion based on equianalgesic dose ratios included in the drug package insert

SOURCES: https://pubmed.ncbi.nlm.nih.gov/31917418/, https://www.pbm.va.gov/PBM/AcademicDetailingService/Documents/Academic_Detailing_Educational_Material_Catalog/IB_1497_Provider_BupChronicPain.pdf https://accpjournals.onlinelibrary.wiley.com/doi/full/10.1002/phar.2676, CDC 2022 Guideline for Prescribing Opioids for Pain, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4078896/

GUIDELINES FOR OPIOID ROTATION: SUMMARY

Practice Example! **Transition an 80 y/o patient from morphine 180 mg/day to oxycodone**

VALUES FROM EDT*	PATIENT OPIOID VALUES	SOLVE FOR X	AUTOMATICALLY REDUCE DOSE
$\frac{\text{Value of current opioid}}{\text{Value of new opioid}}$	24-hr dose of current opioid X amount of new opioid	Equianalgesic 24-hr dose of new opioid	By 25%–50%†

Frequently assess initial response

Titrate dose of new opioid to optimize outcomes

Calculate supplemental rescue dose used for titration at 5%–15% of total daily dose‡

* If switching to transdermal fentanyl, use equianalgesic dose ratios provided in PI.

† If switching to methadone, reduce dose by 75%–90%.

‡ If oral transmucosal fentanyl used as rescue, begin at lowest dose irrespective of baseline opioid.

CO*RE

BREAKTHROUGH PAIN (BTP)

PATIENTS ON STABLE ATC OPIOIDS MAY EXPERIENCE BTP

- Due to disease progression or a new or unrelated pain
  - Target cause or precipitating factors
- Dose for BTP: Using an **IR, 5%–15%** of total daily opioid dose, administered at an appropriate interval
- **Never use ER/LA for BTP**

CONSIDER OPTIMIZING

- PRN IR opioid trial based on analysis of benefit versus risk
  - There is a risk for problematic drug-related behaviors
  - High-risk: Add only in conjunction with frequent monitoring
  - and follow-up
  - Low-risk: Add with routine follow-up and monitoring
- Consider non-opioid drug therapies and nonpharmacologic treatments

CO*RE

ABUSE-DETERRENT FORMULATION (ADF) OPIOIDS

Drug formulations designed to discourage misuse

An ER/LA opioid with properties to meaningfully deter misuse (less likely to be crushed, injected, or snorted)

Consider as one part of an overall strategy

Mixed evidence on the impact of ADF on misuse

Overdose is still possible if taken orally in excessive amounts

These products are expensive with no generic equivalents

CO*RE

URINE DRUG TESTING (UDT)

- Urine testing is done **FOR** the patient, not **TO** the patient (not punitive)
- Helps to identify drug misuse/addiction
- Assists in assessing and documenting adherence

Scan to view Urine Drug Screen Video

CLINICAL CONSIDERATIONS

- Recommend UDT before first prescription (baseline), then intermittently, depending on clinical judgment and state regulations
- Document time and date of last dose taken
- Be aware of possible false positives or negatives
- Clarify unexpected results with the lab before confronting patient to rule out poor specimen or error

SCREENING VERSUS CONFIRMATORY UDTs

	SCREENING (Office-based)	CONFIRMATORY (Send to lab)
Analysis technique	Immunoassay	GC-MS or HPLC
Sensitivity (power to detect a class of drugs)	Low or none when testing for semi-synthetic or synthetic opioids	High
Specificity (power to detect an individual drug)	Varies (can result in false positives or false negatives)	High
Turnaround	Rapid	Slow
Cost/Other	Lower cost; intended for a drug-free population; may not be useful in pain medicine	Higher cost; legally defensible results

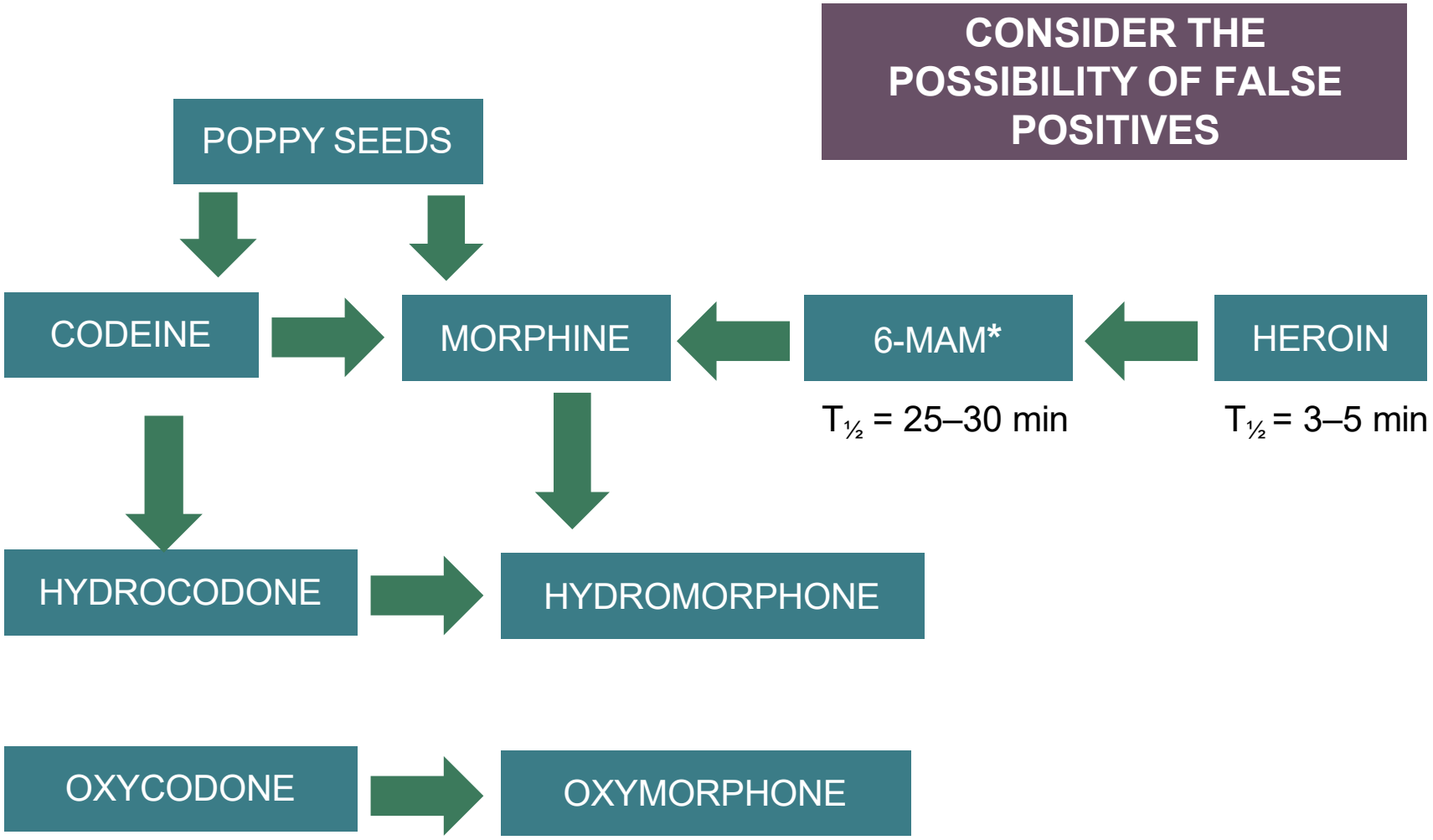
GC-MS = gas chromatograph-mass spectrometry; HPLC = high-performance liquid chromatography

WINDOWS OF SPECIFIC DRUG DETECTION

Drug	How soon after taking drug will there be a positive drug test?	How long after taking drug will there continue to be a positive drug test?
Cannabis/ Tetrahydrocannabinol (THC)	1–3 hours	1–7 days (can be up to 1 month if long-term use)
Crack (cocaine)	2–6 hours	2–3 days
Heroin (opiates)	2–6 hours	1–3 days
Speed/uppers (amphetamine, methamphetamine)	4–6 hours	2–3 days
Angel dust/PCP	4–6 hours	7–14 days
Ecstasy	2–7 hours	2–4 days
Benzodiazepine	2–7 hours	1–4 days
Barbiturates	2–4 hours	1–3 weeks
Methadone	3–8 hours	1–3 days (up to 2 weeks)
Tricyclic antidepressants	8–12 hours	2–7 days
Oxycodone	1–3 hours	1–2 days

Source: http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/InVitroDiagnostics/DrugsofAbuseTests/ucm125722.htm

EXAMPLES OF OPIOID METABOLISM



*6-MAM = 6-Monoacetylmorphine

CONSIDERATIONS FOR RE-EVALUATING OPIOID USE

THERAPEUTIC GOALS ARE ACHIEVED	INTOLERABLE AND UNMANAGEABLE AEs	NO PROGRESS TOWARD THERAPEUTIC GOALS	RISKS OUTWEIGH BENEFITS

MISUSE BEHAVIORS

- One or two episodes of increasing dose without prescriber knowledge
- Sharing medications
- Unapproved opioid use to treat another symptom (e.g., insomnia)
- Use of illicit drugs or unprescribed opioids
- Repeatedly obtaining opioids from multiple outside sources
- Prescription forgery
- Multiple episodes of prescription loss
- Diversion

Even at prescribed doses, opioids carry the risk of misuse, abuse, opioid use disorder, overdose, and death

*Scan to view CO*RE Tools*

CO*RE

PATIENT-CENTERED APPROACH TO TAPERING

No single approach is appropriate for all patients

- Discontinue through a taper schedule
- If OUD suspected:
  - Begin treatment: Medications for Opioid Use Disorder (MOUD)
  - Consider referral to an addiction or OUD specialist if appropriate
- Consider rotation to partial agonist (e.g., buprenorphine)
- May use a range of approaches, from a slow 10% dose reduction per week to a more rapid 25%–50% reduction every few days
- To minimize withdrawal symptoms in patients physically dependent on opioids, consider medications to assist with withdrawal (clonidine, NSAIDs, antiemetics, antidiarrheal agents)

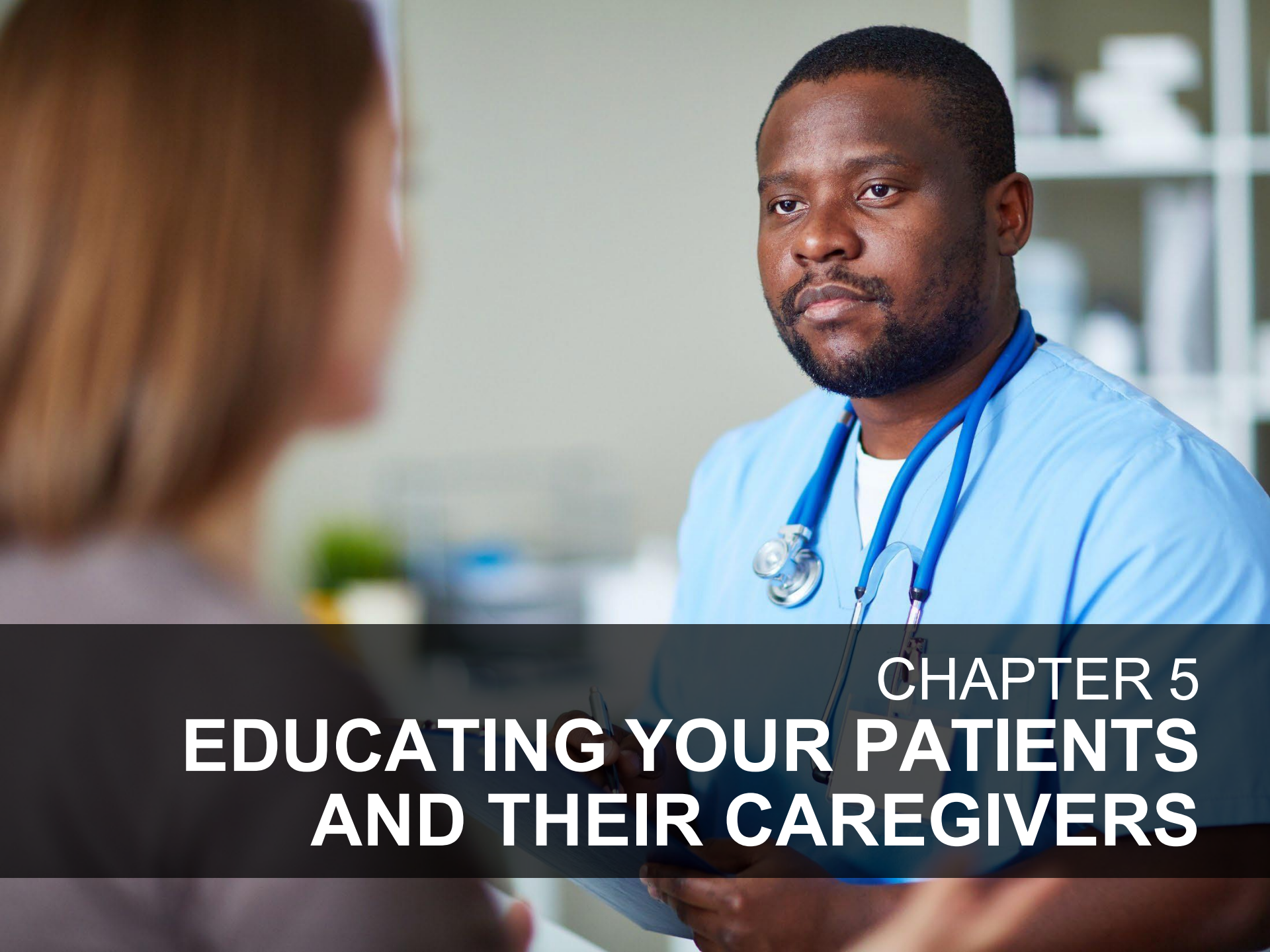
Source: https://pubmed.ncbi.nlm.nih.gov/37356051/

CO*RE

CONSULTING A PAIN SPECIALIST

- Appropriate when you feel you cannot provide the level of care needed
- First ensure you have a reliable specialist to refer to
- To find a pain specialist in your area:
  - Consult with state boards
  - Consult with colleagues
  - Use online resources
  - Consult payment source
- Prior to referral, contact the specialist and ask what is needed for referral

Adequately **DOCUMENT**
all patient interactions,
assessments, test results,
treatment plans,
and expectations.



CHAPTER 5

EDUCATING YOUR PATIENTS AND THEIR CAREGIVERS

COUNSEL PATIENTS

Scan to view Patient Counseling Guide

Proper Use

- Take opioid as prescribed
- If a dose is missed: do not take extra, contact HCP
- Use least amount of medication necessary for shortest time
- Long-term opioid use: avoid abrupt discontinuation, taper safely to avoid withdrawal symptoms

Monitoring/Side Effects

- Notify HCP if pain is uncontrolled
- Go over all side effects (previous chapter)

Safety

- Inform HCP of ALL side effects, other meds/supplements taken
- Use caution when operating heavy machinery and driving

Storage

- Note how many pills are in each prescription
- Keep track of dosage and refills
- Make sure everyone in the home knows meds are tracked
- Keep meds in a safe place (locked cabinet or box)
- Store away from children, family, visitors, and pets
- Extra precautions needed with adolescents in the home

Sources: https://www.accessdata.fda.gov/drugsatfda_docs/rems/opioid_Analgesic_2018_09_18_Patient_Counseling_Guide.pdf & McDonald E, Kennedy-Hendrick A, McGinty E, Shields W, Barry C, Gielen A. Pediatrics. 2017;139(3):e20162161

CO*RE

COUNSEL PATIENTS AND CAREGIVERS

WARNINGS
(Safe Administration)

- Never break, chew, crush, or snort an opioid tablet/capsule
- Never cut or tear patches or buccal films
- If patient cannot swallow, determine if appropriate to sprinkle contents on applesauce or administer via feeding tube
- Use of CNS depressants or alcohol with opioids can cause overdose

WHAT TO LOOK FOR
(Safety Concerns)

- Cravings
- Being unable to fulfill work/family obligations
- Nodding off
- Taking more than prescribed
- Sedation, cognitive impairment
- Falls and fractures
- Never share medications with others

OPIOID-INDUCED RESPIRATORY DEPRESSION

Distribute, dispense, or prescribe naloxone to patient or caregiver. Teach proper administration.

If not immediately recognized and treated, may lead to respiratory arrest and death

More likely to occur in opioid-naïve patients during initiation or after dose increase

Instruct patients/family members to:

- Screen for shallow or slowed breathing
- Deliver NALOXONE
- **CALL 911**

Instructions may differ if patient is on hospice or near end of life

Greatest risk: when co-prescribed with a benzodiazepine

CO*RE

SIGNS OF ACCIDENTAL OPIOID POISONING:

- Person cannot be aroused or is unable to talk
- Any trouble with breathing, heavy snoring is warning sign
- Gurgling noises coming from mouth or throat
- Body is limp, seems lifeless; face is pale, clammy
- Fingernails or lips turn blue/purple
- Slow, unusual heartbeat or stopped heartbeat

CALL 911 &

Administer Naloxone

CO*RE

NALOXONE OPTIONS

- Available as auto-injector, intramuscular injection, or nasal spray
- Cost and insurance coverage vary
- Make use of tutorial videos or live demonstration to educate patient/family/caregiver on proper administration
- Store at room temperature

Naloxone vials

Narcan nasal spray

Evzio (auto-injector)

Trade names are used for identification purposes only and do not imply endorsement.

Source: FDA Information About Naloxone and Nalmefene

CO*RE

WHERE AND HOW TO DISPOSE OF UNUSED OPIOIDS

Authorized Collection Sites

- Use the DEA disposal locator website to find sites near you (QR code to right) or search Google Maps for ”drug disposal nearby”

Scan to view disposal locator

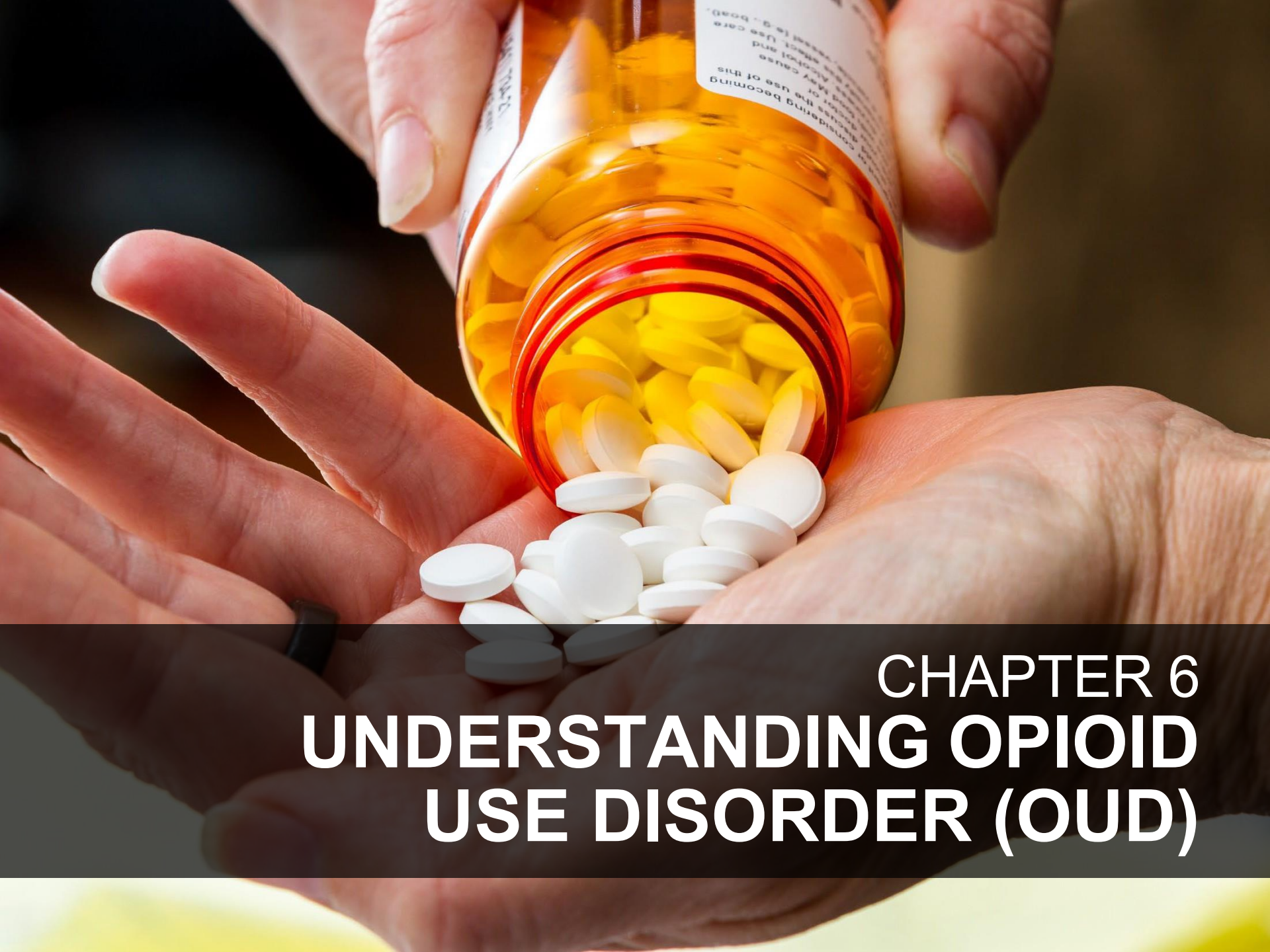
Options

- Check with local pharmacy for disposal options
- Flush
  - Fold patch in half so sticky sides meet, then flush
- Trash (mix with noxious element like kitty litter or compost)

Mail-Back Packages

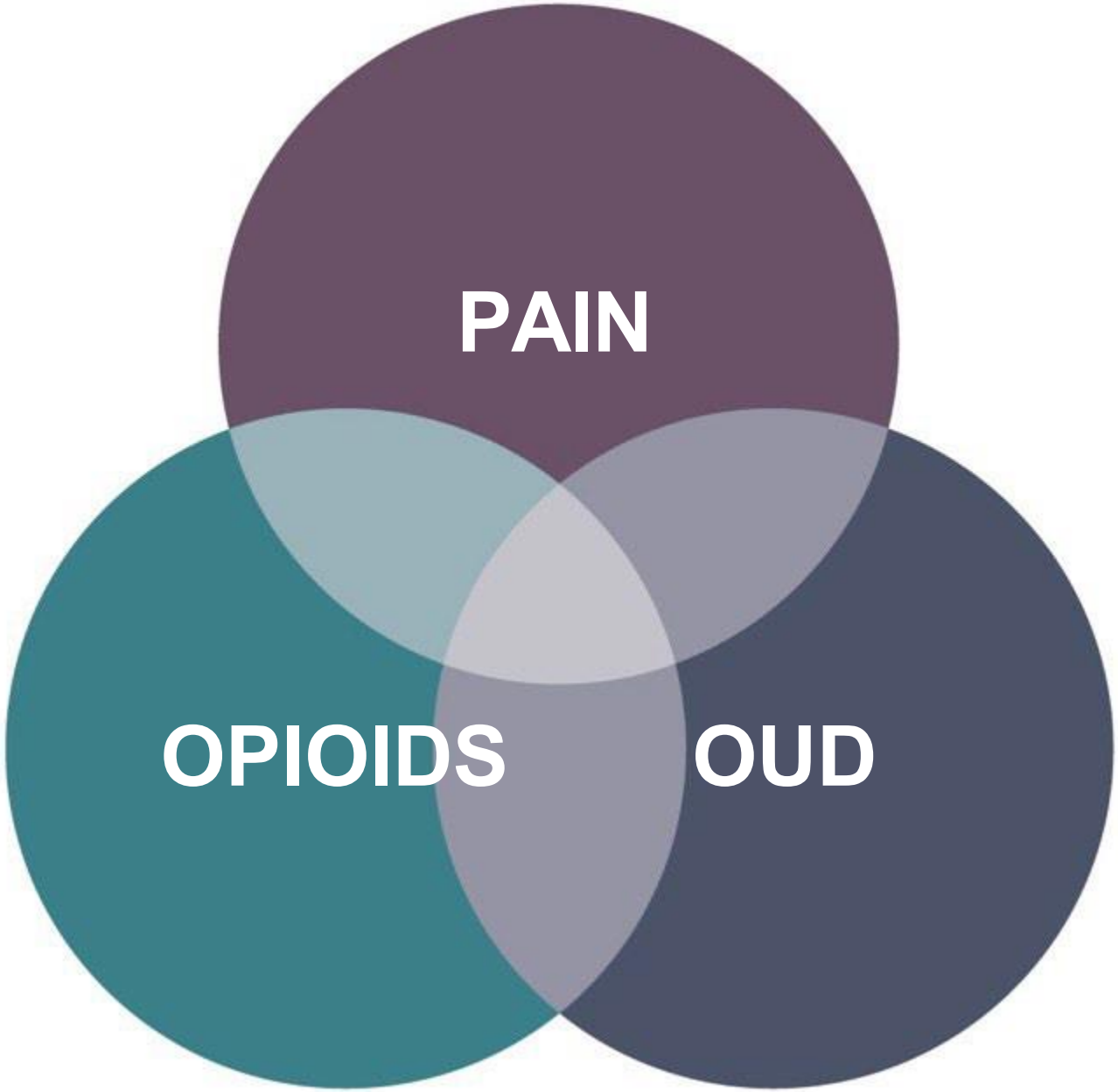
- Obtain from authorized collectors

Sources: FDA. Where and How to Dispose of Unused Medicines. https://www.fda.gov/consumers/consumer-updates/where-and-how-dispose-unused-medicines; EPA. How to Dispose of Medicines Properly. https://archive.epa.gov/region02/capp/web/pdf/ppcpflyer.pdf



CHAPTER 6

UNDERSTANDING OPIOID USE DISORDER (OUD)



WHAT IS ADDICTION?

Practical Definition:

Addiction is the continued use of drugs or activities, despite knowledge of continued **harm** to oneself or others.

Official ASAM Definition:

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

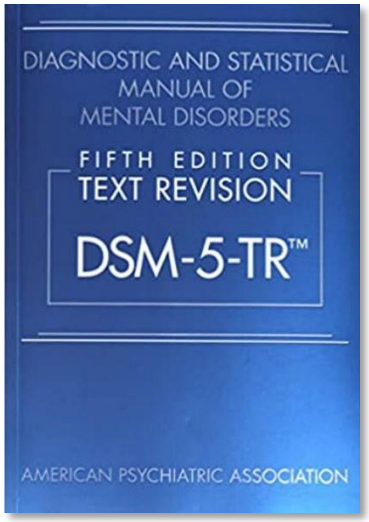
OPIOID USE DISORDER: DSM-5-TR CRITERIA

Be alert to these factors in your patients on long-term opioid therapy

1. Taking larger amounts and/or for longer periods than intended
2. Persistent desire or inability to cut down or control use
3. Increased time spent obtaining, using, or recovering
4. Craving/compulsion to use opioids
5. Role failure at work, home, school
6. Social or interpersonal problems
7. Reducing social, work, recreational activity
8. Physical hazards
9. Physical or psychological harm

❖ Tolerance

❖ Withdrawal



2–3 = mild
4–5 = moderate
≥6 = severe

❖ Not valid if opioid is taken as prescribed

SOURCE: APA. Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR). 2022

WORDS MATTER – *PEOPLE MATTER*

Physical dependence or tolerance

Doesn't necessarily equal

OUD/ addiction

Doesn't necessarily equal

Aberrant/ problematic behavior

HOW TO IDENTIFY RISK FOR MY PATIENTS

10%–26% of patients on chronic opioid therapy (COT) for chronic noncancer pain (CNCP) may develop OUD

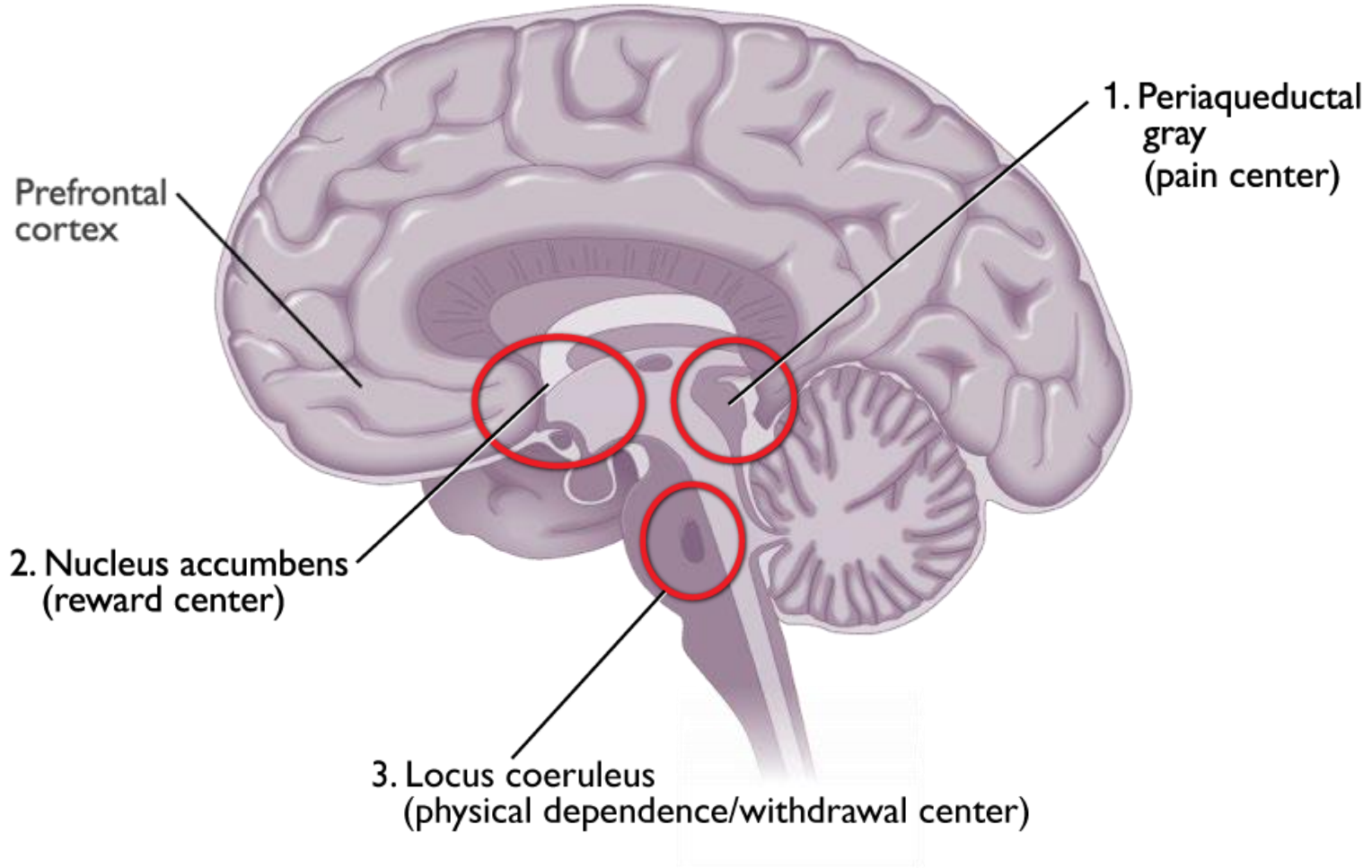
What to look for:

- High dosages
- Prolonged use
- Low hedonic tone
- Mental health disorders
- Past history of substance use disorder

Clinical judgment is key.

Source: Chou R, et al. Ann Intern Med. 2015;162:276-86

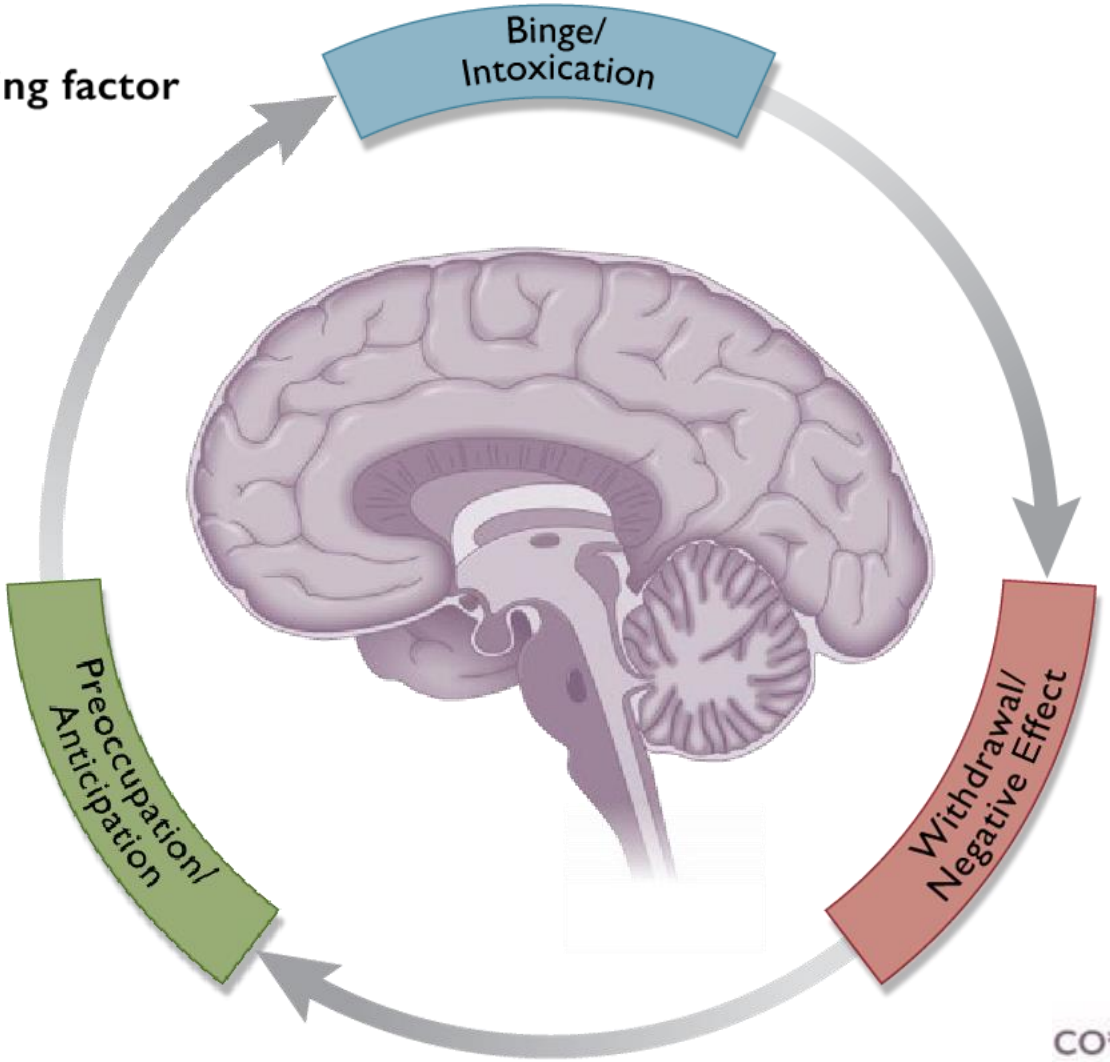
OPIOID RECEPTORS IN THE BRAIN: RELATIONSHIP TO ANALGESIA, OUD, AND WITHDRAWAL



THE CYCLE OF SUBSTANCE USE DISORDER

NEUROTRANSMITTERS

- Dopamine
- Opioid peptides
- Corticotropin-releasing factor
- Dynorphin
- Glutamate



CO*RE

MEDICATION FOR OPIOID USE DISORDER (MOUD)

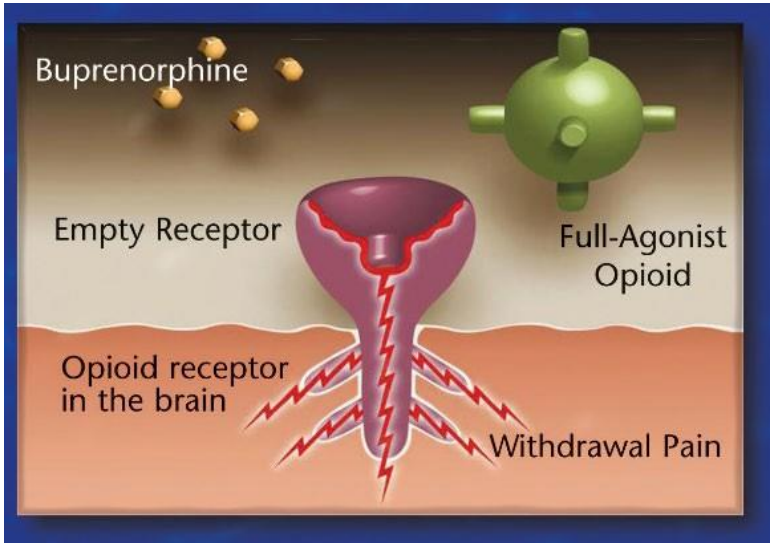
- Important and evidence-based medication that saves lives
- You can start from your office, as an outpatient
- Patients with OUD have decreased mortality when treated – *you can save a life!*

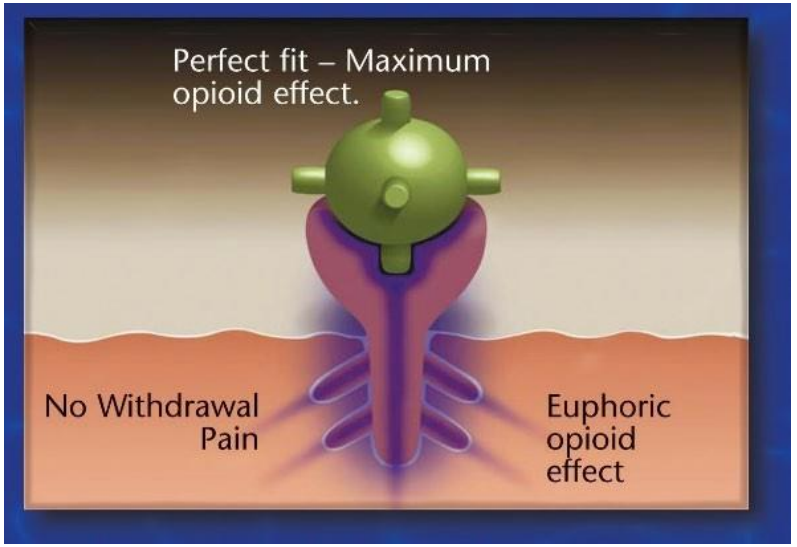
There are three medication options:

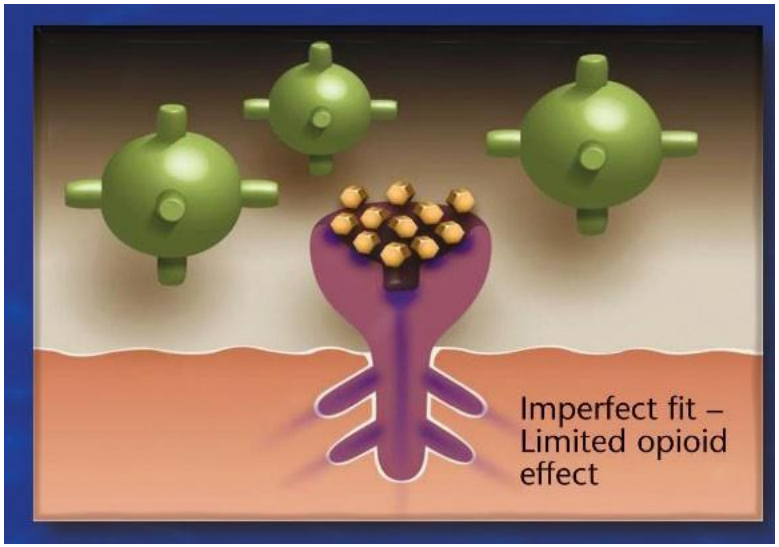
1. Buprenorphine (Schedule III)
2. Methadone (Schedule II)
3. Naltrexone (not a controlled substance)

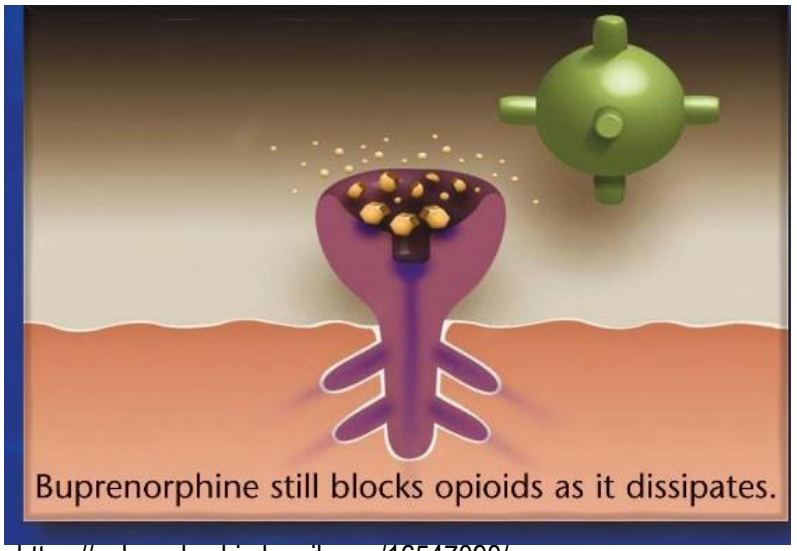
Are we just replacing one drug with another?
Myth or fact?

HOW BUPRENORPHINE WORKS









Source: https://www.naabt.org/education/images/Receptors_HiRes.jpg, https://pubmed.ncbi.nlm.nih.gov/16547090/

BUPRENORPHINE

- Most commonly prescribed pharmacotherapy for treatment of OUD
- Good efficacy and safety profile
- “Plateau effect” for respiratory depression
- Congress eliminated the X-waiver requirement to prescribe Bup
- All DEA-licensed HCPs can prescribe without patient number caps
- Long-acting injectable and sublingual form indicated to treat opioid withdrawal and craving

FDA-approved bup products for pain:

- Butrans: 7-day transdermal patch
- Belbuca: buccal mucosal film; BID dosing

Source: https://pubmed.ncbi.nlm.nih.gov/16547090/

CO*RE

AVOID OTHER SUBSTANCES THAT COULD CONTRIBUTE TO AN ACCIDENTAL OVERDOSE

- Benzodiazepines (BZDs), sedatives, muscle relaxants; they are CNS depressants
- More than 30% of opioid overdoses involve benzodiazepines (BZDs)
- Evaluate for SUD to support recovery efforts for all substances

Source: NIDA. Takaki H, et al. Am Journal Addictions. 2019;1-8.

USE A WHOLE-PERSON APPROACH WHEN TREATING A PATIENT WITH OUD FOR PAIN

- Must address *both* pain and opioid use disorder
- Remember that untreated pain is a trigger for return to use
- Avoid other potentially problematic medications
- Consider a multimodal pain program, including non-pharma options
- Avoid stigmatizing patients who are on long-term opioids for pain

- Consider buprenorphine for both pain and OUD
- Enlist patient's family/caregivers to secure and dispense opioids
- Recommend an active recovery program
- Remember to use PDMP
- Use screening methods (UDT, pill counts, PPA) to identify challenges and initiate discussion

Source: Bailey J, et al. Pain Med 2010;11:1803-1818.

CO*RE

RESOURCES TO HELP YOU TREAT OR TO REFER:

TREATMENT SUPPORT

SAMHSA –
Training Materials & Resources

NIDA –
Treatment Resources

PCSS –
Providers Clinical Support System

REFERRAL SUPPORT

ASAM –
Physician Finder

SAMHSA –
Find Treatment

AAAP –
Specialist Finder

IN SUMMARY

- There is a place for opioids, but use caution
- Use multimodal therapies as part of the pain management care plan
- Screen for OUD risk with a validated instrument
- Continually reassess patients using opioids
- Patient and family/caregiver education is essential
- If you suspect OUD, begin treatment

Please complete your post-test 🤗

Complete the brief post-test for CE/CME credit

Your participation helps the FDA reach its goals for REMS education

THANK YOU!

WWW.CORE-REMS.ORG

FULL LIST OF SOURCES AVAILABLE UPON REQUEST