

# Pain Management and Opioids: Balancing Risks and Benefits

PRESENTED BY



UPDATED January 2020



# ACKNOWLEDGMENTS

Presented by **the American Society of Addiction Medicine**, a member of the CO\*RE Collaborative, nine interdisciplinary organizations working together to improve pain management and prevent adverse outcomes.

This curriculum fully covers to the September 2018 FDA Blueprint.

# THE CO\*RE COLLABORATIVE



# FACULTY ADVISORY PANEL



David Bazzo, MD  
UC SAN DIEGO



Ron Crossno, MD  
KINDRED AT HOME



Katherine Galluzzi, DO  
PHILADELPHIA COLLEGE  
OF OSTEOPATHIC MEDICINE



Carol Havens, MD  
KAISER PERMANENTE



Randall Hudspeth, APRN  
PRACTICE CONSULTANT



Dennis Rivenburgh, PA-C  
JOHNS HOPKINS SCHOOL  
OF MEDICINE



Edwin Salsitz, MD  
MOUNT SINAI BETH ISRAEL



Barb St. Marie, ANP  
UNIVERSITY OF IOWA

**CO\*RE FACULTY ADVISORS  
AND ALL PLANNERS  
HAVE NO  
RELEVANT FINANCIAL  
RELATIONSHIPS**



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

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



# WHY ARE WE HERE?

# CO\*RE STATEMENT

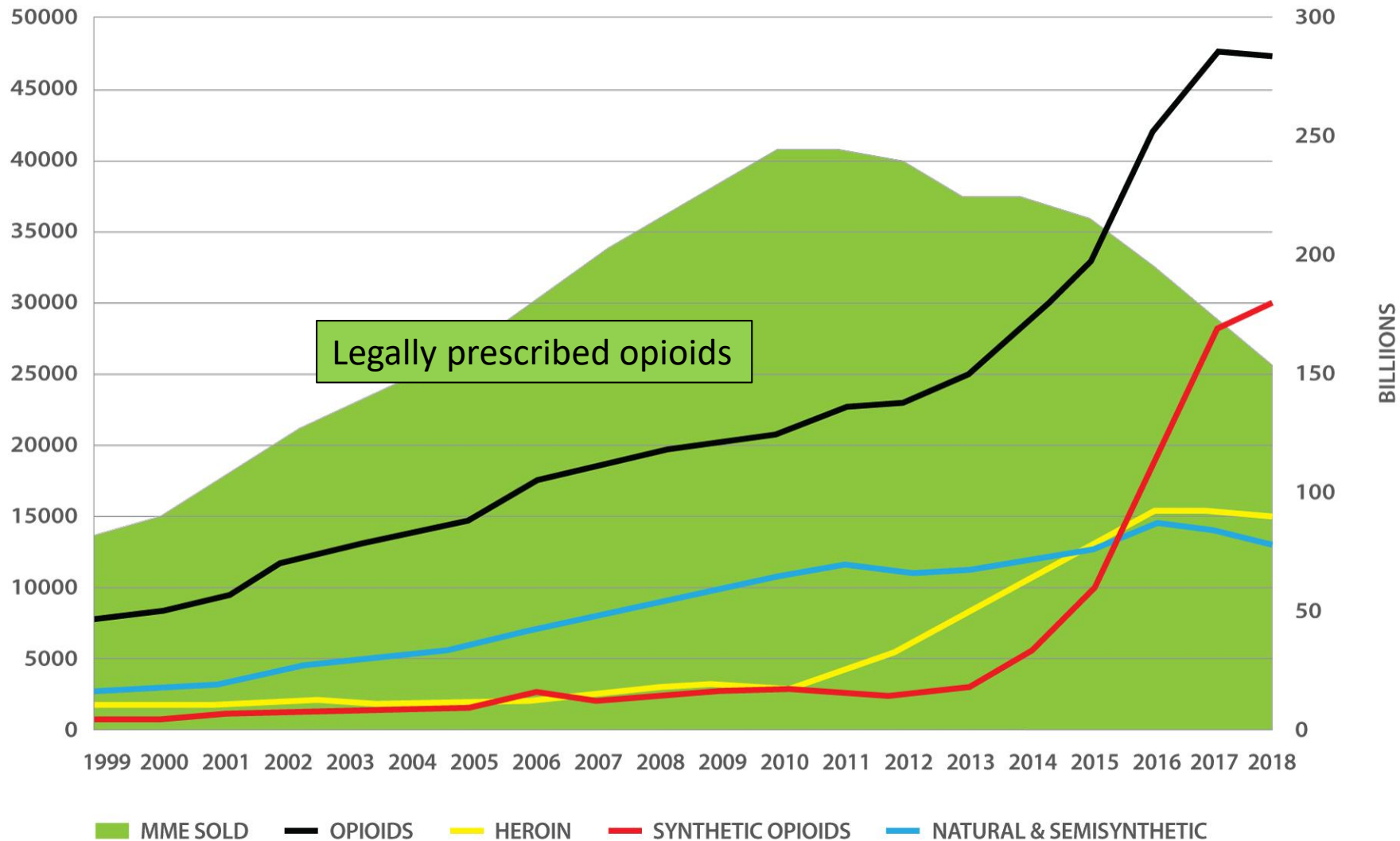
Misuse, abuse, diversion, addiction, and overdose of opioids in the United States have created a serious public health epidemic.

When prescribed well, and used as prescribed, opioids can be valuable tools for effective pain management.

There is potential for unintended consequences of inadequately managed pain from far-reaching prescribing restrictions.

This course does not advocate for or against the use of opioids. We intend to help healthcare providers 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.

# PRESCRIBING PATTERNS AND OPIOID-RELATED DEATHS





# DEA SCHEDULED DRUGS



SCHEDULE	DESCRIPTION	EXAMPLES
I	High potential for abuse; no currently accepted medical use	Heroin, LSD, cannabis, ecstasy, peyote
II	High potential for abuse, which may lead to severe psychological or physical dependence	Hydromorphone, methadone, meperidine, oxycodone, fentanyl, morphine, opium, codeine, hydrocodone combination products
III	Potential for abuse, which may lead to moderate or low physical dependence or high psychological dependence	Products containing $\leq 90$ mg codeine per dose, buprenorphine, benzphetamine, phendimetrazine, ketamine, anabolic steroids
IV	“Low potential” for abuse	Alprazolam, benzodiazepines, carisoprodol, clonazepam, clorazepate, diazepam, lorazepam, midazolam, temazepam, tramadol
V	Low potential for abuse	Cough preparations containing $\leq 200$ mg codeine/100 ml

Complete list of products covered under the Opioid Analgesic REMS available at: <https://opioidanalgesicrems.com/RpcUI/products.u>

# FENTANYL AND FENTANYL ANALOGUES



Overdose deaths from street fentanyl and fentanyl analogues, such as carfentanil, have increased 540% in three years.

Street fentanyl is illegally manufactured; it is generally NOT a diverted pharmaceutical product.

Two causes of fentanyl OD death: opioid-induced **respiratory depression** and **rigid chest wall syndrome**; higher or repeated doses of naloxone are required to reverse a fentanyl overdose.

Fentanyl is also unknowingly mixed with heroin, cocaine, and methamphetamine, which contributes to OD deaths.

# RISKS VERSUS BENEFITS OF PRESCRIBED OPIOIDS

## RISKS

- Misuse, diversion, and addiction
- Abuse by patient or household contacts
- Interactions with other meds and substances
- Risk of neonatal abstinence syndrome
- Inadvertent exposure/ingestion by household contacts, especially children
- Life-threatening respiratory depression
- Overdose, especially as ER/LA formulations contain more MME than IR

## BENEFITS

- Analgesia
  - Reliable pain control
  - Quick analgesia (particularly with Immediate Release)
- Continuous, predictable (with Extended-Release/Long-Acting) Improved function
- Improved quality of life

SOURCE: Nicholson, B. Pain Pract. 2009;9(1):71-81. <http://onlinelibrary.wiley.com/doi/10.1111/j.1533-2500.2008.00232.x/abstract>



# CHAPTER 1

# PAIN



# THE NEUROMECHANISMS OF PAIN

## Peripheral Pain Modulators:

- Histamines
- Prostaglandins
- Cytokines
- Bradykinin
- Substance P
- Others



4 Perception in the brain  
(modulation occurs)

3 Transmission along  
spine up to brain  
(modulation occurs)

2 Transmission along  
mixed fiber neurons  
(modulation occurs)

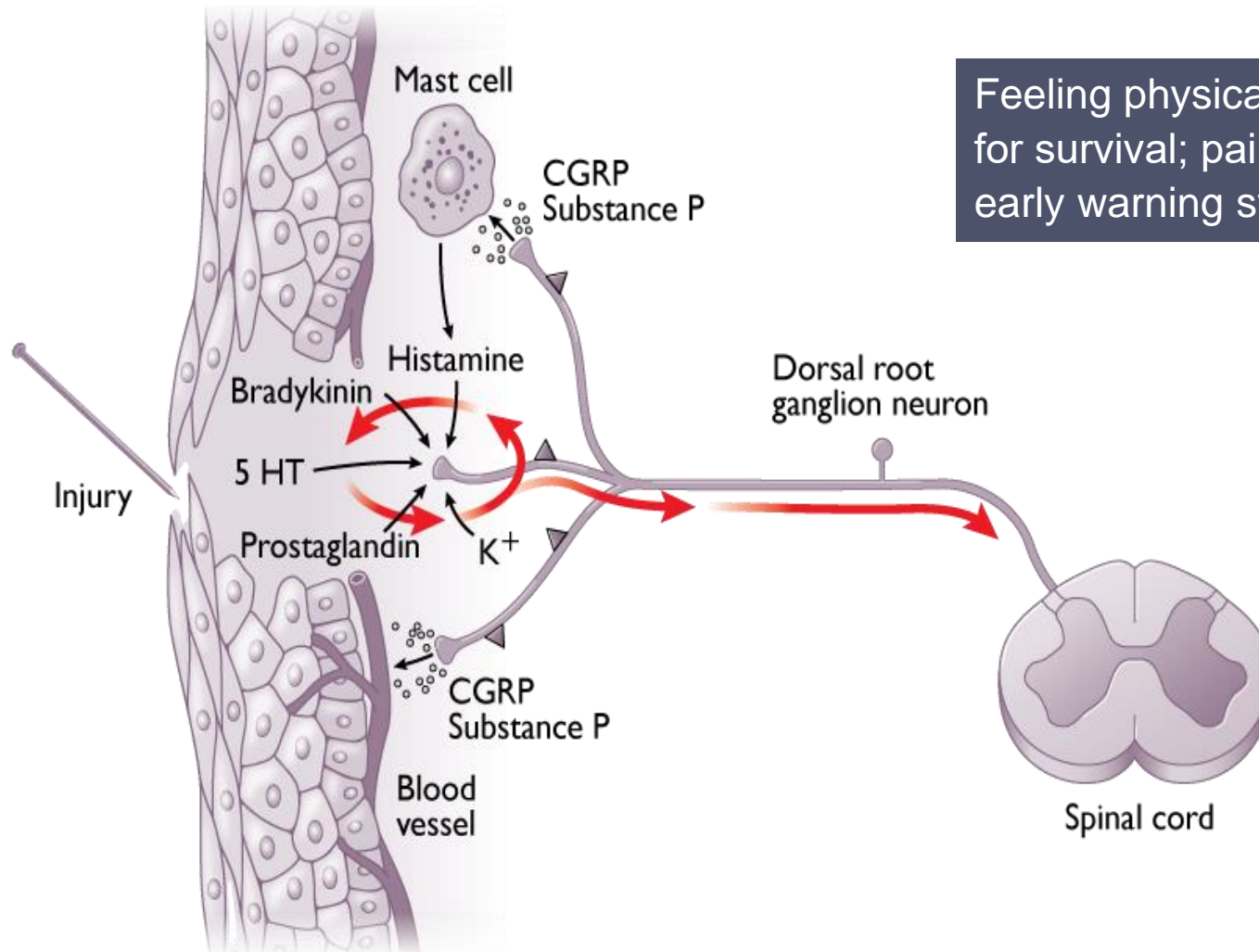
5 Descending pathway  
(down regulation)

## Descending Neurotransmitters:

- Serotonin
- Norepinephrine
- Endogenous opiates
- Others

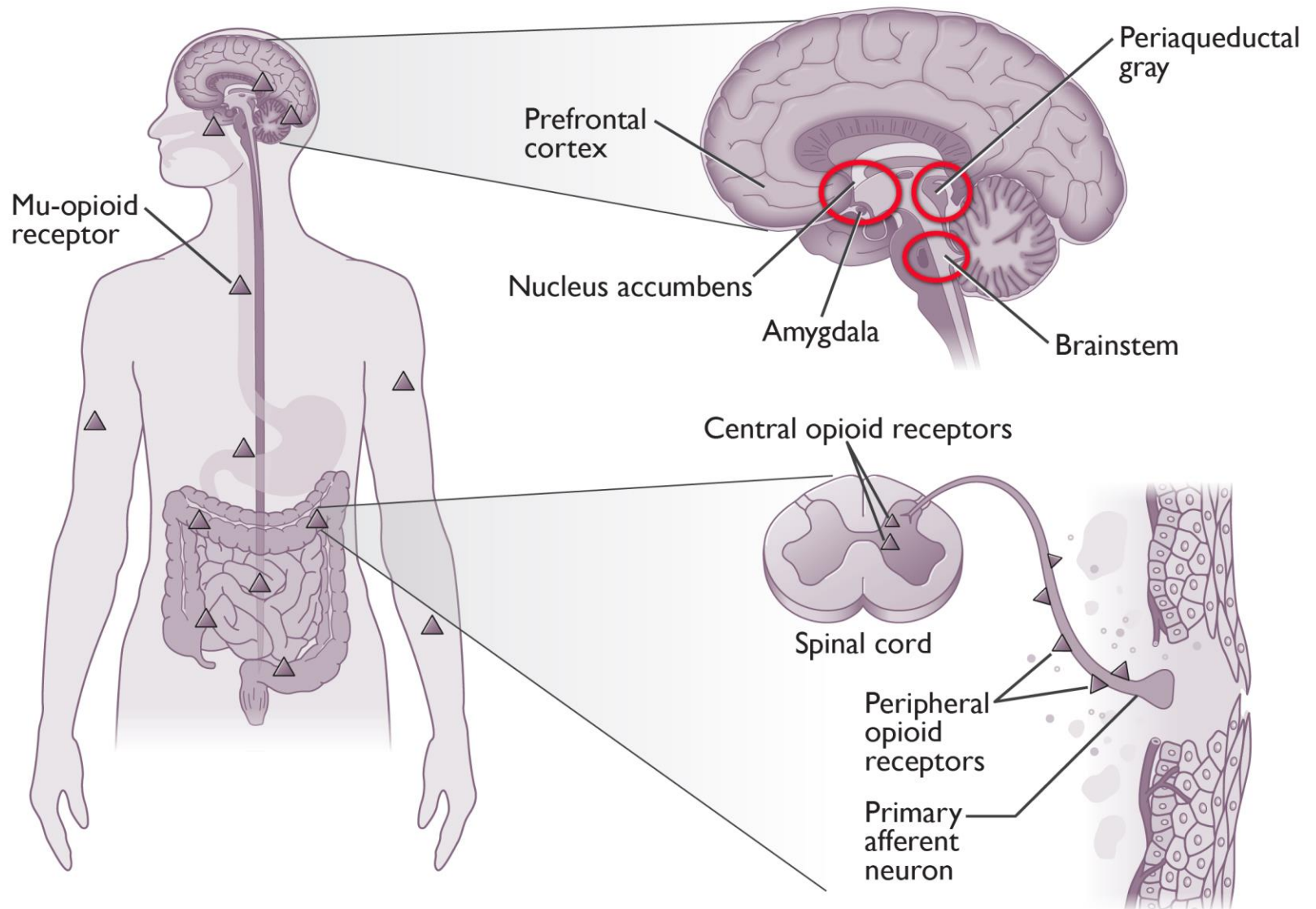
# MEDIATORS OF PERIPHERAL NOCICEPTION

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

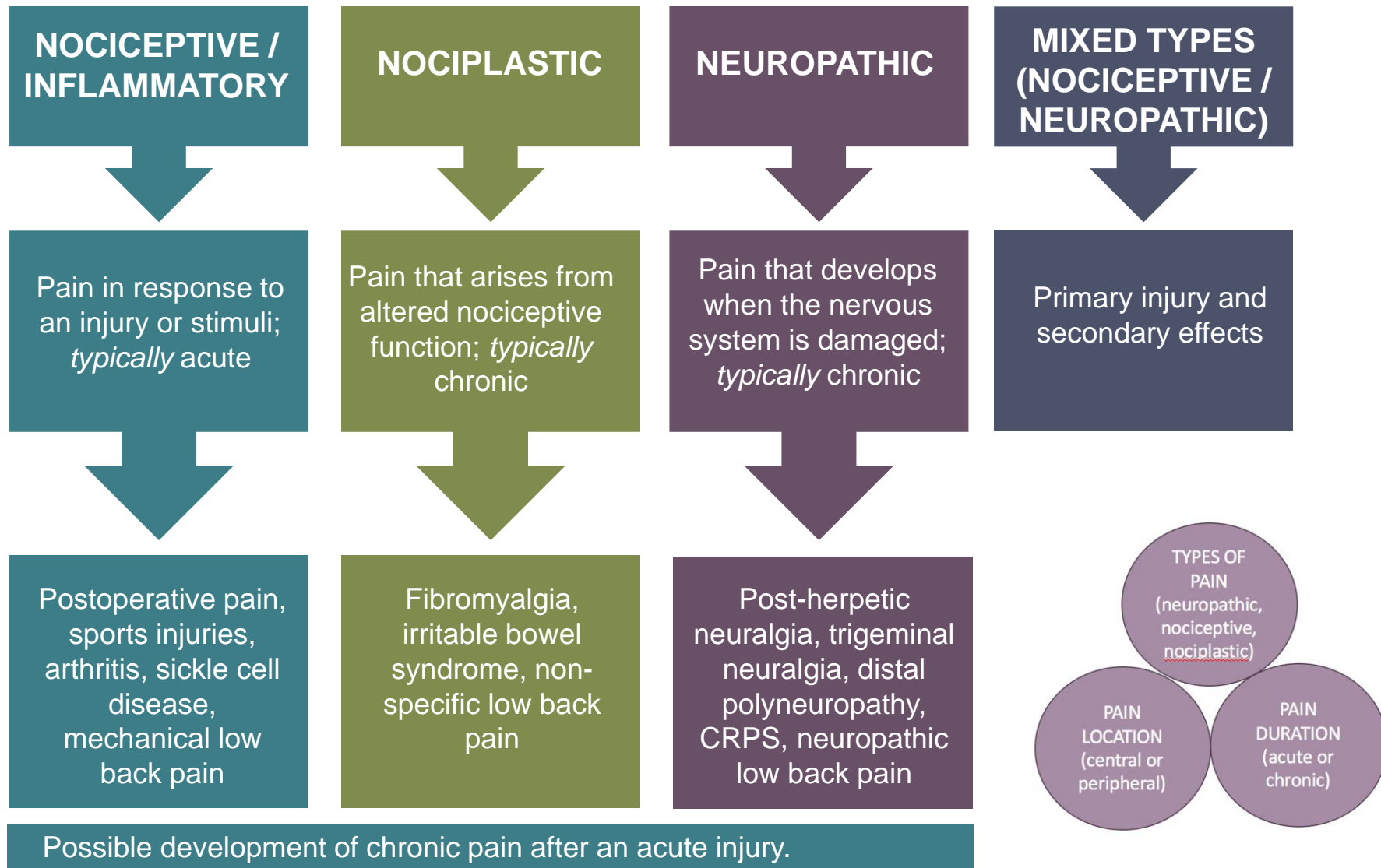


With thanks to Allan Basbaum and David Julius, University of California, San Francisco

# OPIOID RECEPTOR LOCATIONS

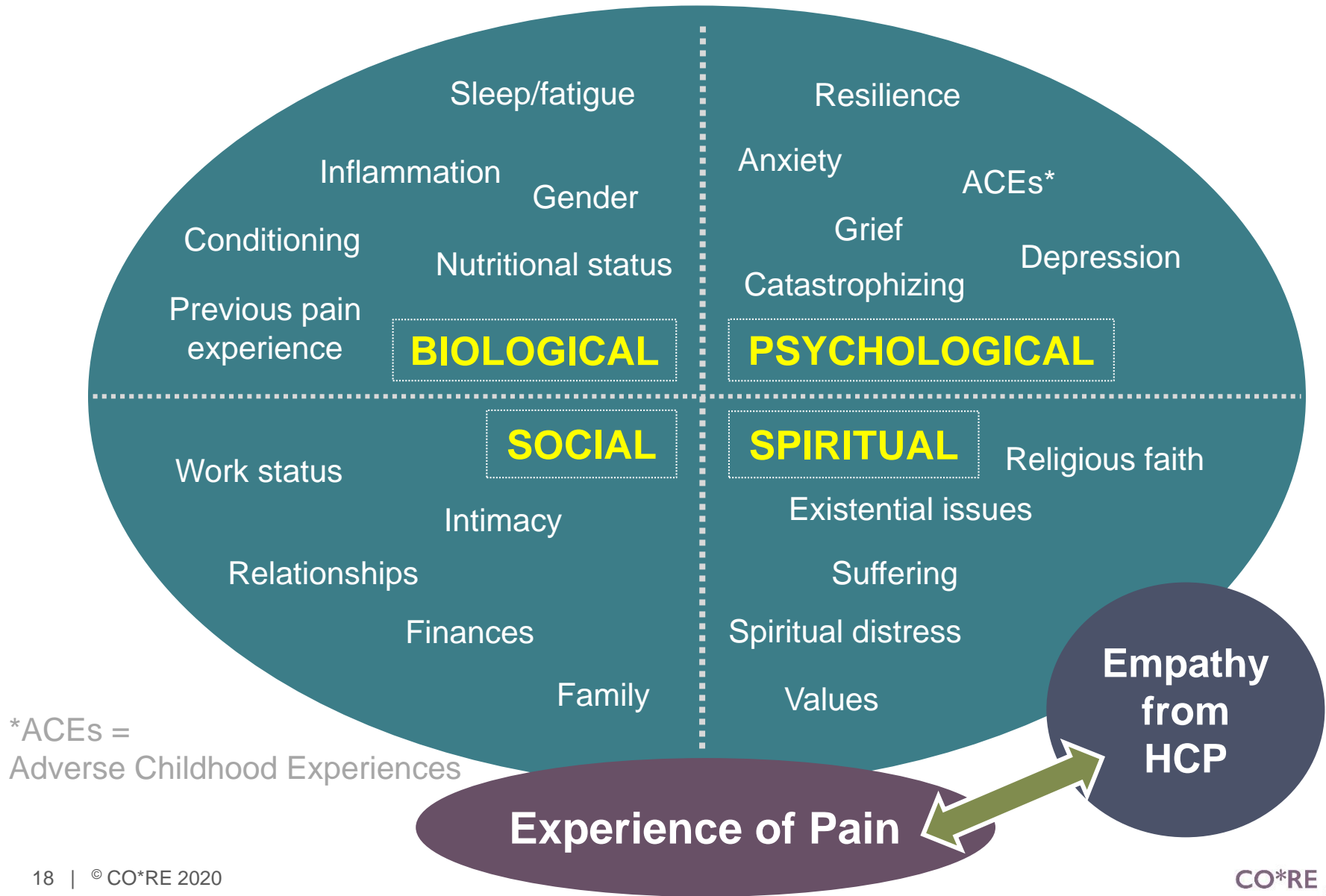


# TYPES OF PAIN





# THE BIOPSYCHOSOCIAL SPIRITUAL CONTEXT OF PAIN

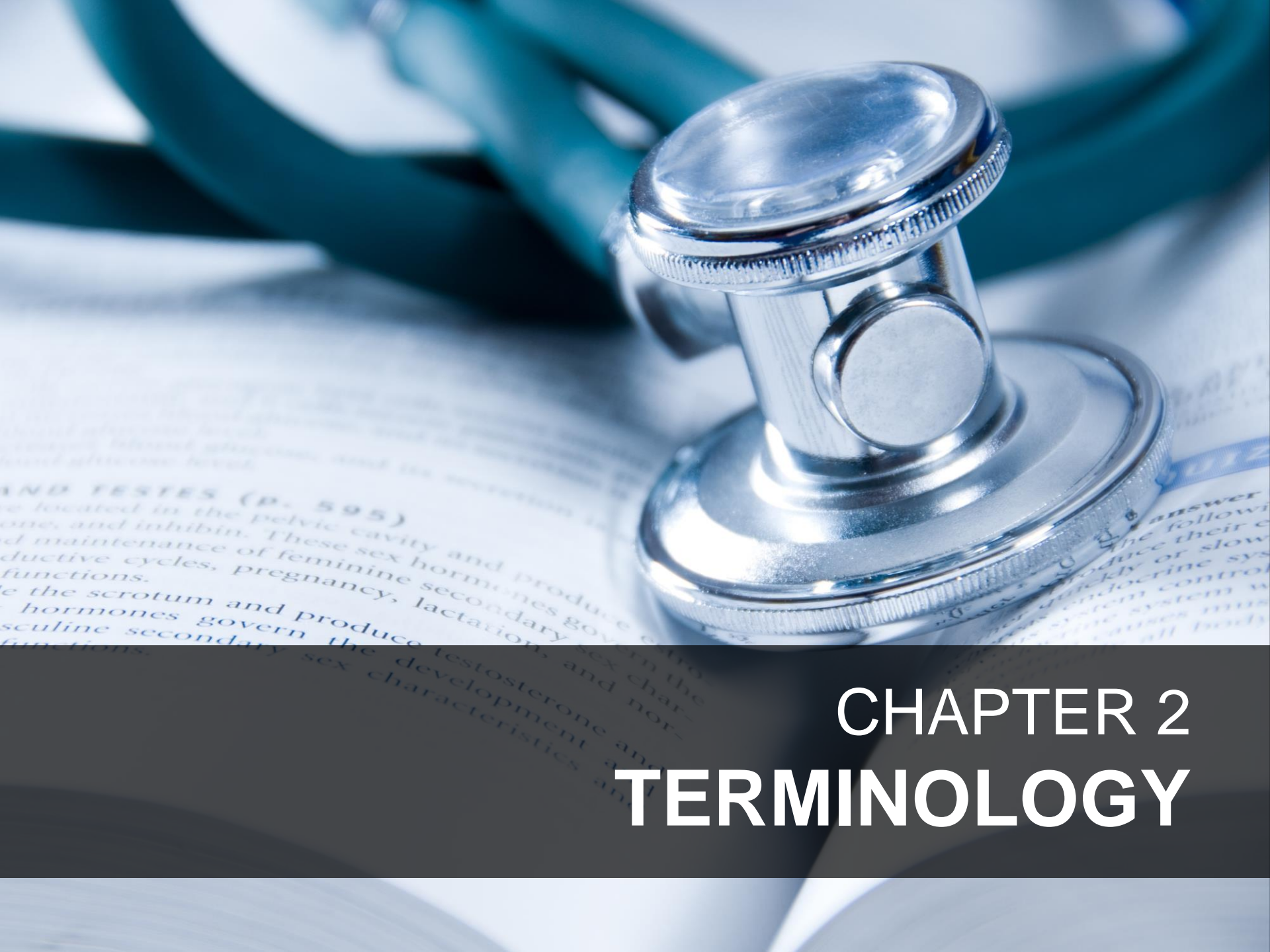


# PAIN CATASTROPHIZING

	Not at all	To a slight degree	To a moderate degree	To a great degree	All the time
I worry all the time about whether the pain will end	0	1	2	3	4
I feel I can't go on	0	1	2	3	4
It's terrible and I think it's never going to get any better	0	1	2	3	4
It's awful and I feel that it overwhelms me	0	1	2	3	4
I feel I can't stand it anymore	0	1	2	3	4
I become afraid that the pain will get worse	0	1	2	3	4
I keep thinking of other painful events	0	1	2	3	4
I anxiously want the pain to go away	0	1	2	3	4
I can't seem to keep it out of my mind	0	1	2	3	4
I keep thinking about how much it hurts	0	1	2	3	4
I keep thinking about how badly I want the pain to stop	0	1	2	3	4
There's nothing I can do to reduce the intensity of the pain	0	1	2	3	4
I wonder whether something serious may happen	0	1	2	3	4

- “*Tell me about your pain...*”
- Listen for rumination, feelings of hopelessness, or anticipation of negative outcomes.
- These feelings are important to identify because they can prolong and intensify pain; or lead to higher levels of suffering and altered perception of pain.
- If identified, shift to “*tell me about your life.*”

SOURCE: Pain Catastrophizing Scale © 2009 Dr. Michael JL Sullivan  
Mapi Research Trust, Lyon, France. Internet: <https://eprovide.mapi-trust.org>



# CHAPTER 2 TERMINOLOGY

# WORDS MATTER: LANGUAGE CHOICE CAN REDUCE STIGMA

*“If you want to care for something, you call it a flower; if you want to kill something, you call it a weed.”*

—Don Coyhis

Commonly Used Term	Preferred Term
Addiction	Substance use disorder (SUD) [from the <i>DSM-5</i> <sup>®</sup> ]
Drug-seeking, aberrant/problematic behavior	Using medication not as prescribed
Addict	Person with substance use disorder (SUD)
Clean/dirty urine	Positive/negative urine drug screen

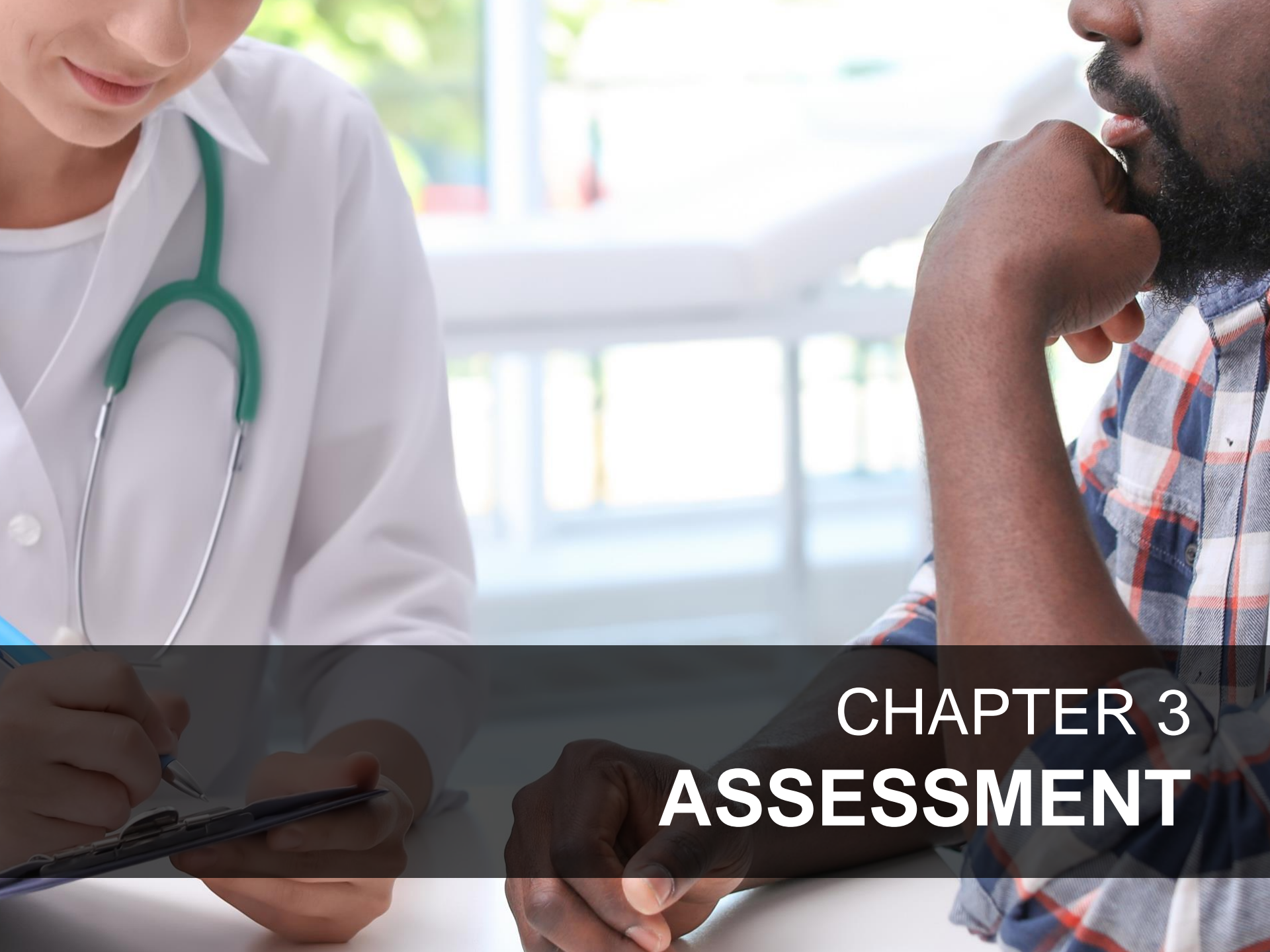
SOURCES: SAMHSHA Resource: <https://www.samhsa.gov/capt/sites/default/files/resources/sud-stigma-tool.pdf>  
Scholten W. Public Health. 2017;153:147-153. DOI: [10.1016/j.puhe.2017.08.021](https://doi.org/10.1016/j.puhe.2017.08.021)



## WORDS MATTER: DEFINITIONS

<b>Misuse</b>	Use of a medication in a way other than the way it is prescribed
<b>Abuse</b>	Use of a substance with the intent of getting high
<b>Tolerance</b>	Increased dosage needed to produce a specific effect
<b>Dependence</b>	State in which an organism only functions normally in the presence of a substance
<b>Diversion</b>	Transfer of a legally controlled substance, prescribed to one person, to another person for illicit (forbidden by law) use
<b>Withdrawal</b>	Occurrence of uncomfortable symptoms or physiological changes caused by an abrupt discontinuation or dosage decrease of a pharmacologic agent
<b>MME</b>	Morphine milligram equivalents; a standard opioid dose value based on morphine and its potency; allows for ease of comparison and risk evaluations
<b>Chronic non-cancer pain (CNCP)</b>	Any painful condition that persists for $\geq 3$ months, or past the time of normal tissue healing, that is not associated with a cancer diagnosis

SOURCES: SAMHSHA Resource: <https://www.samhsa.gov/capt/sites/default/files/resources/sud-stigma-tool.pdf>  
 World Health Organization, Ensuring Balance in National Policies on Controlled Substances.  
[https://www.who.int/medicines/areas/quality\\_safety/GLs\\_Ens\\_Balance\\_NOCP\\_Col\\_EN\\_sanend.pdf](https://www.who.int/medicines/areas/quality_safety/GLs_Ens_Balance_NOCP_Col_EN_sanend.pdf)



## CHAPTER 3

# ASSESSMENT



HOW IS PAIN RESOLVED?

# PAIN ASSESSMENT

## DESCRIPTION OF PAIN



Location



Intensity



Quality



Onset/  
duration



Variations/  
patterns/rhythms

## WHAT RELIEVES THE PAIN?

## WHAT CAUSES OR INCREASES THE PAIN?

## EFFECTS OF PAIN ON PHYSICAL, EMOTIONAL AND PSYCHOSOCIAL FUNCTION

## PATIENT'S CURRENT LEVEL OF PAIN AND FUNCTION

SOURCES: Heapy A, Kerns RD. Psychological and behavioral assessment. In: Raj's Practical Management of Pain. 4th ed. 2008:279-295; Zacharoff KL, et al. Managing Chronic Pain with Opioids in Primary Care. 2nd ed. Newton, MA: Inflexion, Inc.;2010.



# PAST MEDICAL AND TREATMENT HISTORY

NONPHARMACOLOGIC STRATEGIES AND EFFECTIVENESS

PHARMACOLOGIC STRATEGIES AND EFFECTIVENESS

RELEVANT ILLNESSES



PAST AND CURRENT OPIOID USE

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

GENERAL EFFECTIVENESS OF CURRENT PRESCRIPTIONS



# PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs)

PDMPs are state-run, electronic databases that track controlled substance prescriptions in a state.

PDMP DATABASES	BENEFITS
<ul style="list-style-type: none"><li>• Provide a full accounting of the controlled substance prescriptions filled by a patient</li><li>• Nearly all are available online 24/7</li><li>• Required in most states; know your state laws</li></ul>	<ul style="list-style-type: none"><li>• Identify potential drug misuse/abuse</li><li>• Discover existing prescriptions not reported</li><li>• Opportunity to discuss with patient</li><li>• Determine if patient is using multiple prescribers/pharmacies</li><li>• Identify drugs that increase overdose risk when taken together (such as benzodiazepines and opioids)</li></ul>

**\* Multiple prescriptions from different providers is most predictive of opioid abuse or misuse.**

# OBTAIN A COMPLETE SOCIAL AND PSYCHOLOGICAL HISTORY

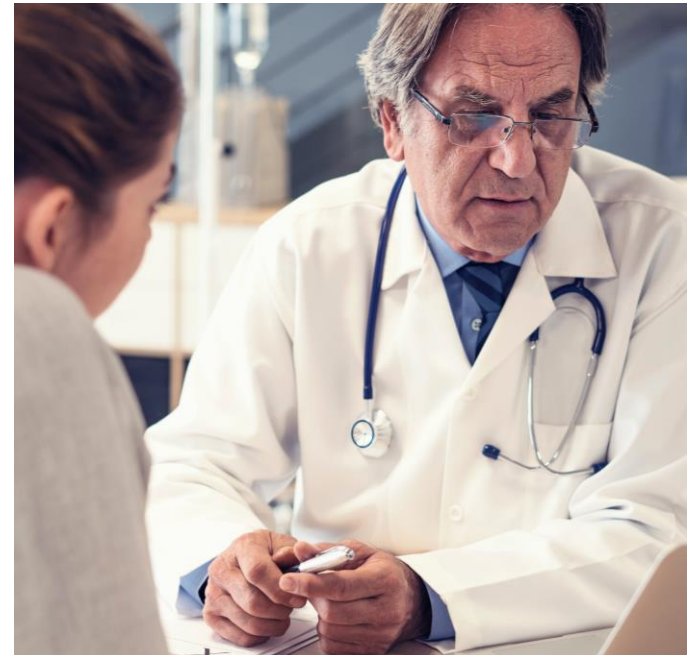
## SOCIAL HISTORY

Employment, cultural background, social network, relationship history, legal history, and other behavioral patterns

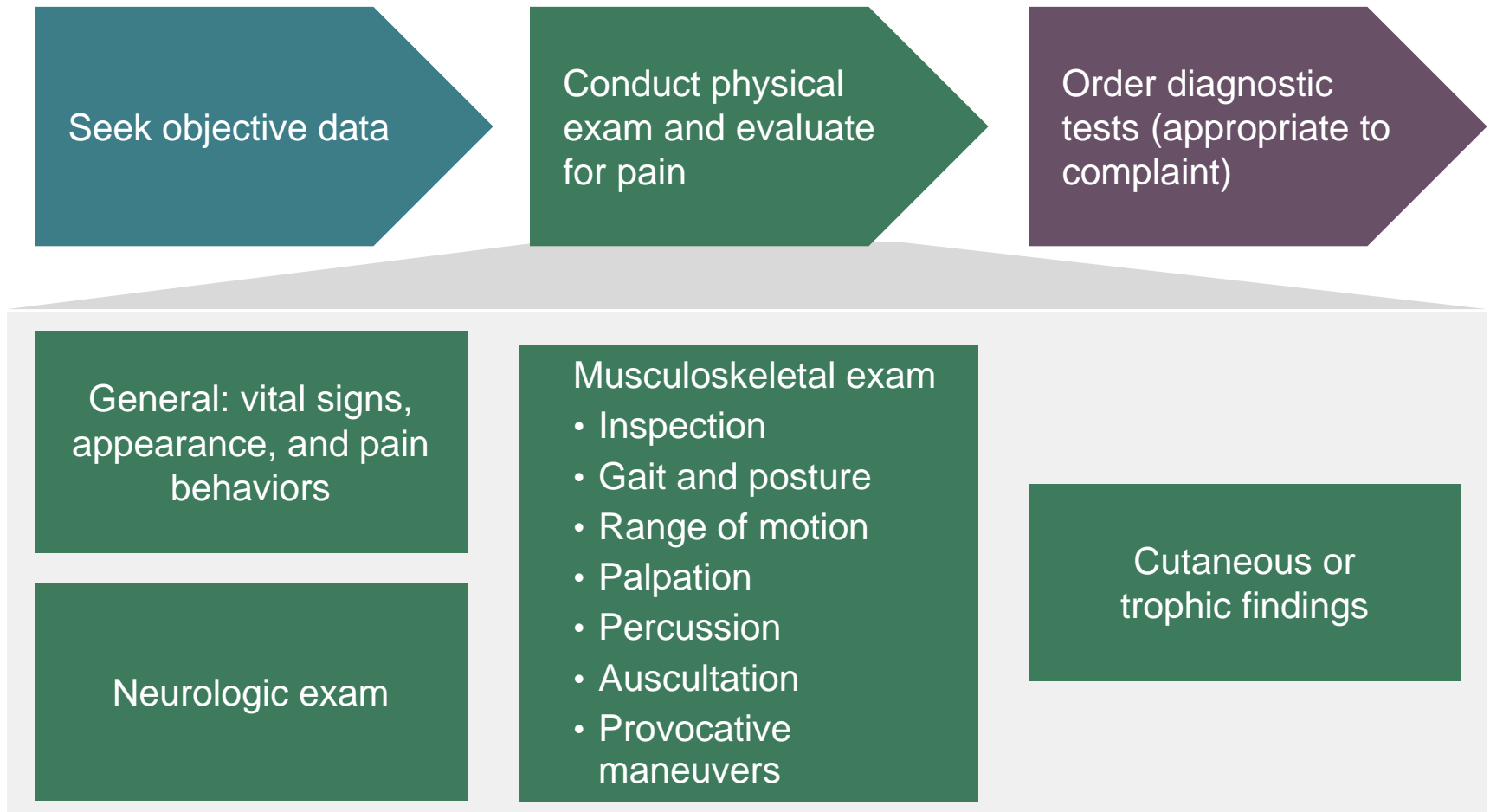
## PSYCHOLOGICAL HISTORY

Screen for:

- Mental health diagnoses, depression, anxiety, PTSD, current treatments
- Alcohol, tobacco, and recreational drug use
- History of adverse childhood experiences
- Family history of substance use disorder and psychiatric disorders
- Depression and anxiety can be predictors of chronic pain



# PHYSICAL EXAM AND ASSESSMENT



SOURCES: Lalani I, Argoff CE. History and Physical Examination of the Pain Patient. In: Raj's Practical Management of Pain. 4th ed. 2008:177-188; Chou R, et al. J Pain. 2009;10:113-130.

# PAIN ASSESSMENT TOOL BOX

<http://core-rem.s.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 Experience Questionnaire

**ACE**

## Assessment in Advanced Dementia

**PAINAD**

1903 Date:  /  /  Study Name: \_\_\_\_\_  
Subject's Initials: \_\_\_\_\_ Protocol #: \_\_\_\_\_  
Study Subject #: \_\_\_\_\_ PI: \_\_\_\_\_  
Revision: 07/01/05

PLEASE USE  
BLACK INK PEN

### Brief Pain Inventory (Short Form)

1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?  
☐ Yes ☐ No

2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.

Front Back  
Right Left Left Right

3. Please rate your pain by marking the box beside the number that best describes your pain at its **worst** in the last 24 hours.  
☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10  
No Pain Pain As Bad As You Can Imagine

4. Please rate your pain by marking the box beside the number that best describes your pain at its **least** in the last 24 hours.  
☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10  
No Pain Pain As Bad As You Can Imagine

5. Please rate your pain by marking the box beside the number that best describes your pain on the **average**.

**Brief Pain Inventory (BPI)**

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

A photograph of medical professionals in a hospital setting. In the foreground, a blonde woman in a white lab coat and a man in green scrubs with a surgical mask are looking at a laptop. In the background, other medical staff in white coats and blue scrubs are walking. The scene is brightly lit and professional.

## CHAPTER 4 CREATING THE PAIN TREATMENT PLAN

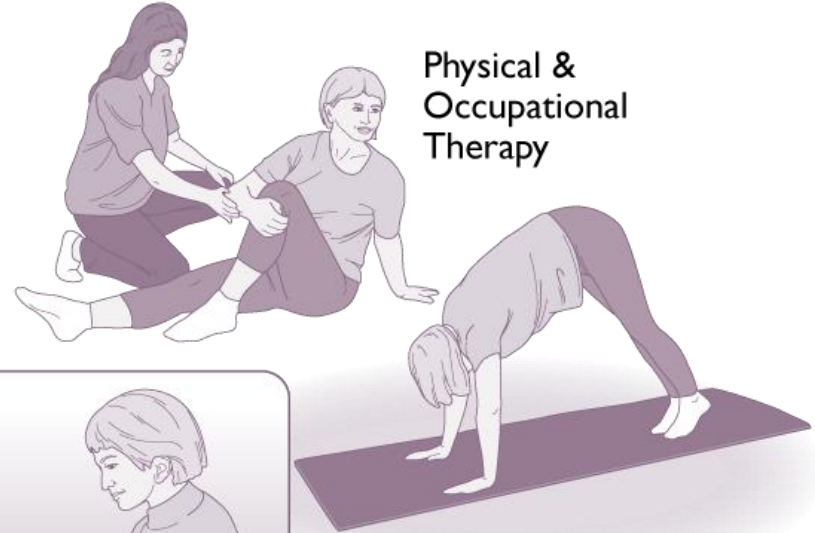


# COMPONENTS OF A MULTIMODAL TREATMENT PLAN FOR PAIN

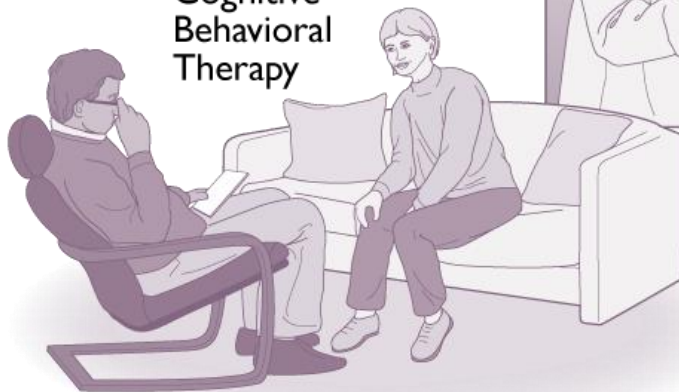
All Staff Working  
as a Treatment Team



Physical &  
Occupational  
Therapy

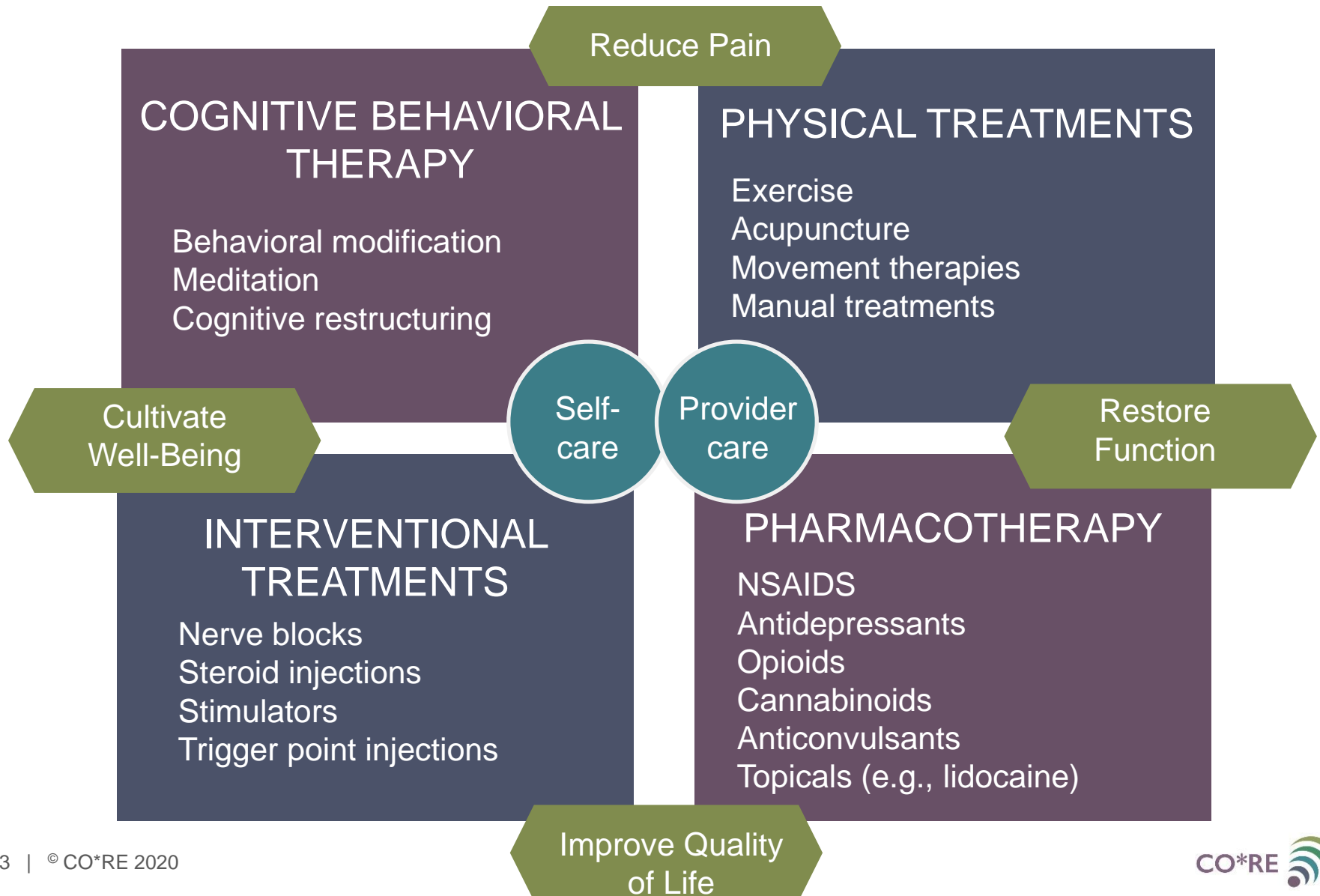


Cognitive  
Behavioral  
Therapy



Pharmacotherapy

# PAIN MANAGEMENT GOALS AND TREATMENT OPTIONS: A MULTIMODAL APPROACH



# EVIDENCE-BASED NONPHARMACOLOGIC TREATMENTS

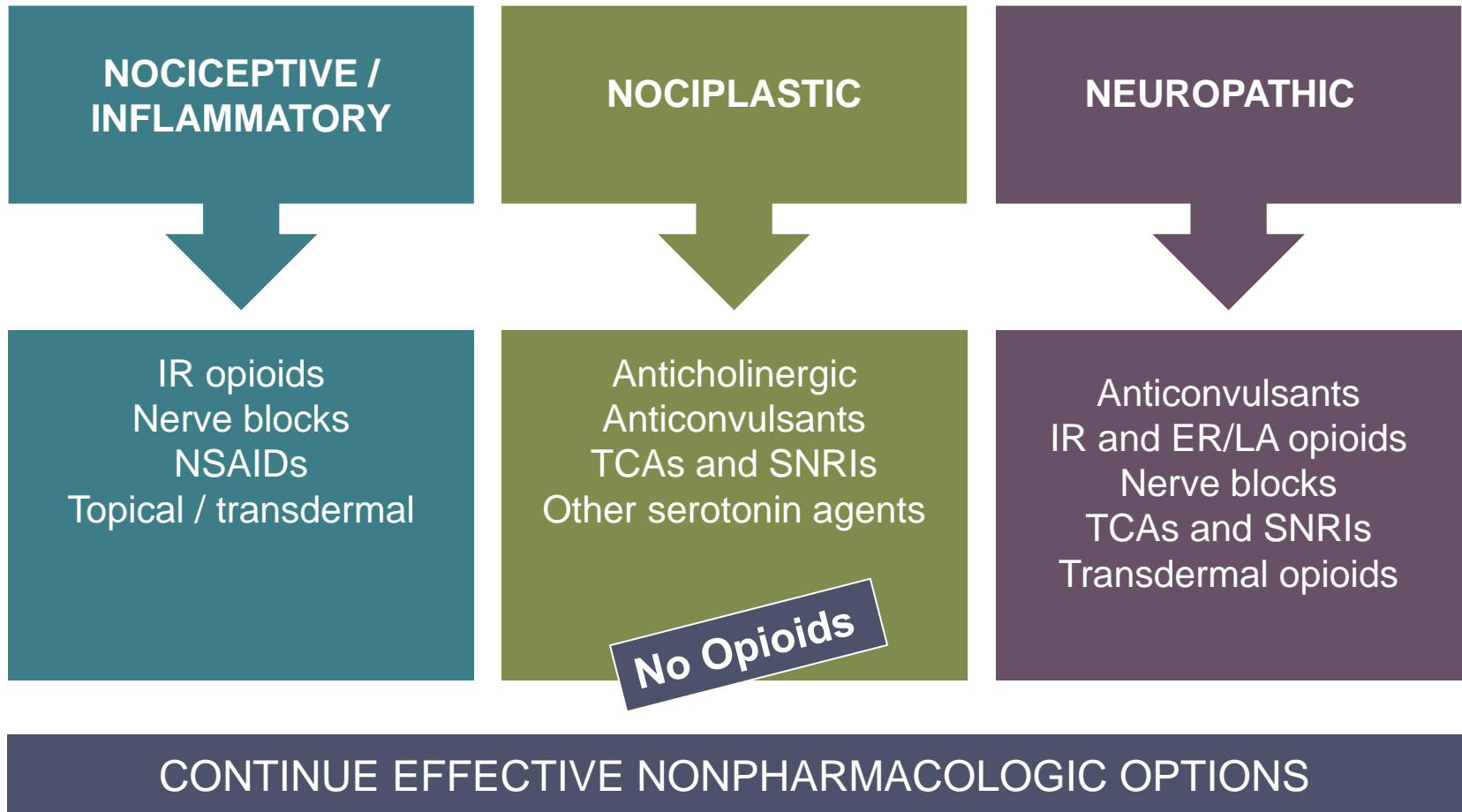
What is appropriate  
for your patient?



- 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

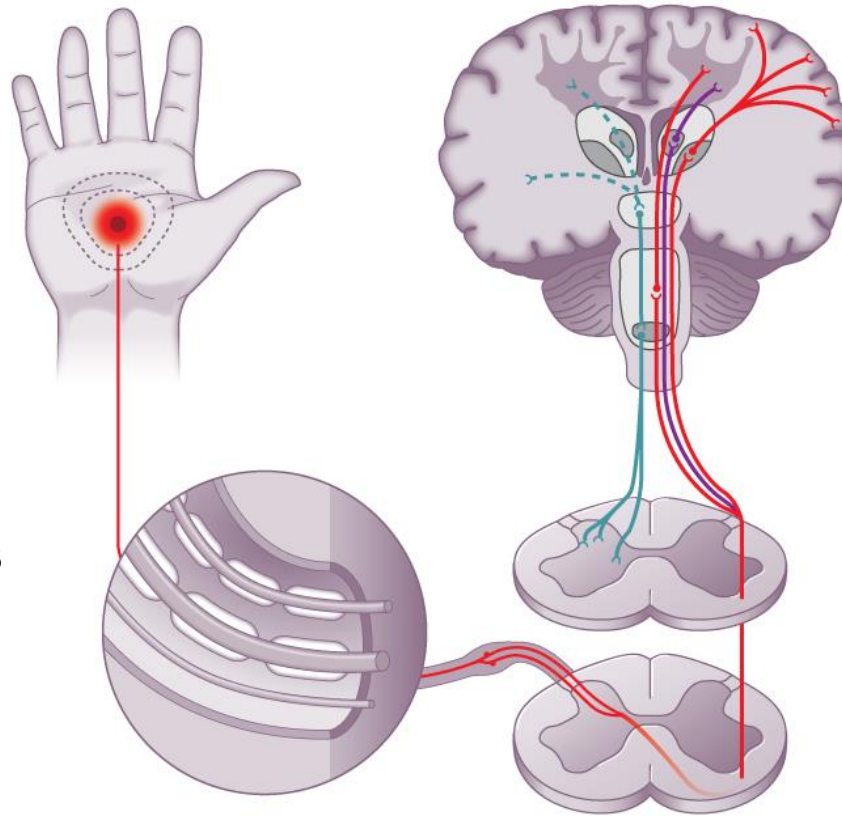
# PHARMACOLOGIC TREATMENTS BY TYPE OF PAIN



# POTENTIAL SITES OF ACTION FOR ANALGESIC AGENTS

## Peripherally Mediated Pain:

- Acetaminophen
- NSAIDs
- Opioids
- Topical anesthetics



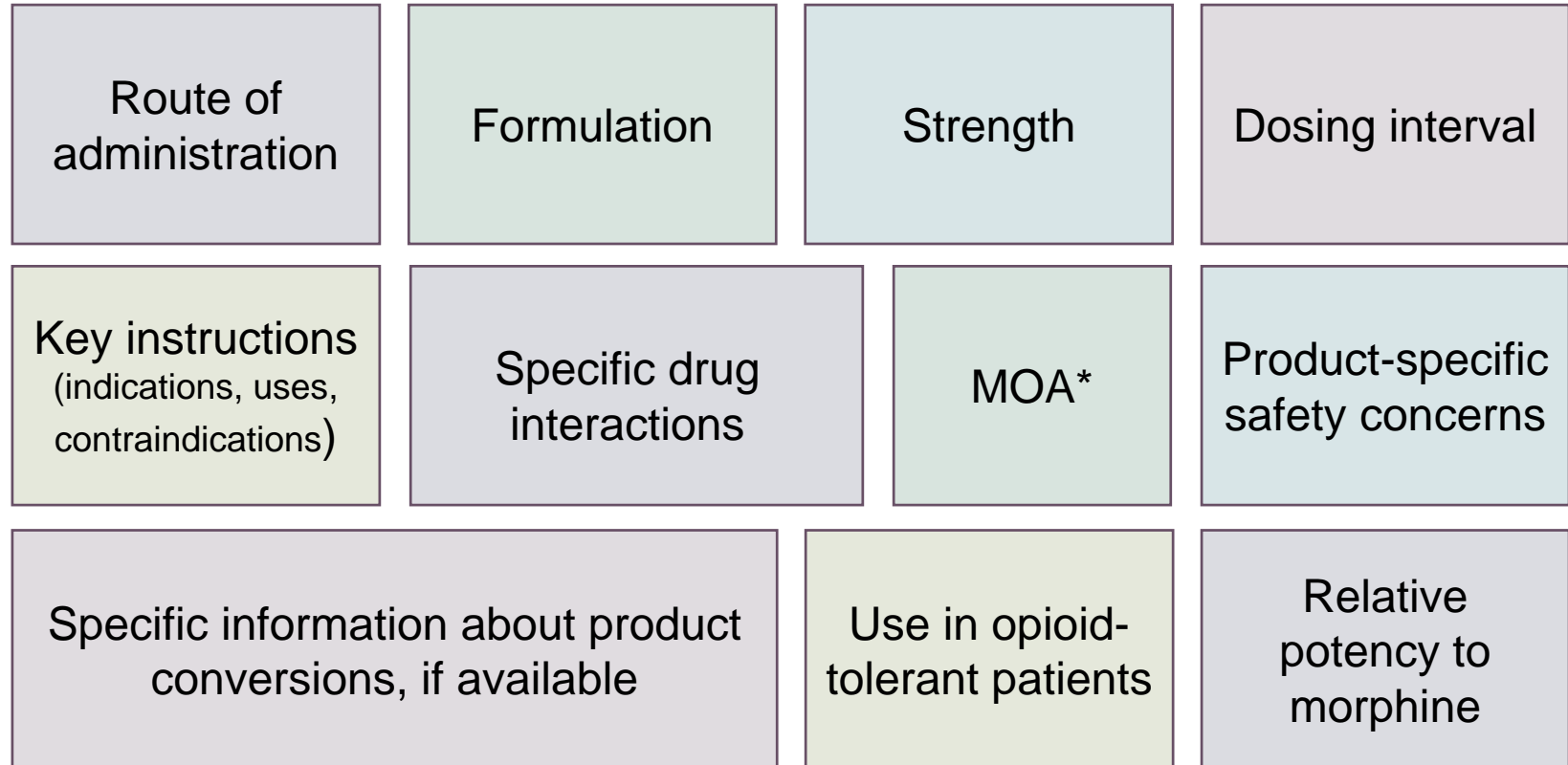
## Centrally Mediated Pain:

- Alpha-2 agonists
- Anticonvulsants
- Ca<sup>+</sup> channel antagonists
- NMDA RAs
- Opioids
- TCA/SNRI antidepressants

Even though the central nervous system is always involved in pain perception, pain can be mediated peripherally.



# DRUG CHARACTERISTICS TO CONSIDER BEFORE PRESCRIBING



\*MOA = Mechanism of action

Opioid product information available at

<https://opioidanalgesicrems.com/RpcUI/products.u>

## CONSIDER AN OPIOID ONLY WHEN:

Potential benefits are likely to outweigh risks

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

Patient has moderate to severe nociceptive or neuropathic pain

Begin as a therapeutic trial



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. 2010.

# OPIOID MISUSE RISK ASSESSMENT TOOLS

<http://core-remis.org/opioid-education/tools/>



## TOOLS FOR PATIENTS CONSIDERED FOR OPIOID THERAPY

**ORT-OD** 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

**RAFFT** Relax, Alone, Friends, Family, Trouble

**DAST** Drug Abuse Screening Test

**CTQ** Childhood Trauma Questionnaire

**ACEs** Adverse Childhood Experiences

# A CLOSER LOOK AT THE ORT-OD

## Opioid Risk Tool – OUD (ORT-OD)

This tool should be administered to patients upon an initial visit prior to beginning or continuing opioid therapy for pain management. A score of 2 or lower indicates low risk for future opioid use disorder; a score of  $\geq 3$  indicates high risk for opioid use disorder.

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

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

### Scoring:

- $\leq 2$ : low risk
- $\geq 3$ : high risk

SOURCE: Cheattle, M., et al. JPain 2019; Jan 26.

# OPIOID SIDE EFFECTS AND ADVERSE EVENTS

SIDE EFFECTS	ADVERSE EVENTS
Respiratory depression	Death
Opioid-induced constipation (OIC)	Addiction
Myoclonus (twitching or jerking)	Overdose
Sedation, cognitive impairment	Hospitalization
Sweating, miosis, urinary retention	Disability or permanent damage
Allergic reactions	Falls or fractures
Hypogonadism	
Tolerance, physical dependence, hyperalgesia	

Prescribers should report serious AEs and medication errors to the FDA:

<https://www.fda.gov/media/76299/download>

or 1-800-FDA-1088



# OPIOID-INDUCED RESPIRATORY DEPRESSION

## MORE LIKELY TO OCCUR:

- In elderly, 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
- Opioids are **contraindicated** in patients with respiratory depression or conditions that increase risk

## 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

# 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

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

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

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

Opioid use with 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>

# 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 †

- Avoid concurrent use 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

The image features a dense field of grey umbrellas, each with a small black pin at its center. In the middle of this field, a single yellow umbrella stands out. The text "SPECIAL POPULATIONS" is written in white, bold, sans-serif capital letters across the yellow umbrella.

# **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

SOURCE: 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, breast feeding 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 provider who will ensure appropriate treatment for the baby
- Perform universal screening to avoid neonatal abstinence syndrome
- For women using opioids on a daily basis, ACOG recommends methadone or buprenorphine



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

# CHILDREN AND ADOLESCENTS

HANDLE WITH CARE: JUDICIOUS & LOW-DOSE  
USE OF IR FOR BRIEF THERAPY

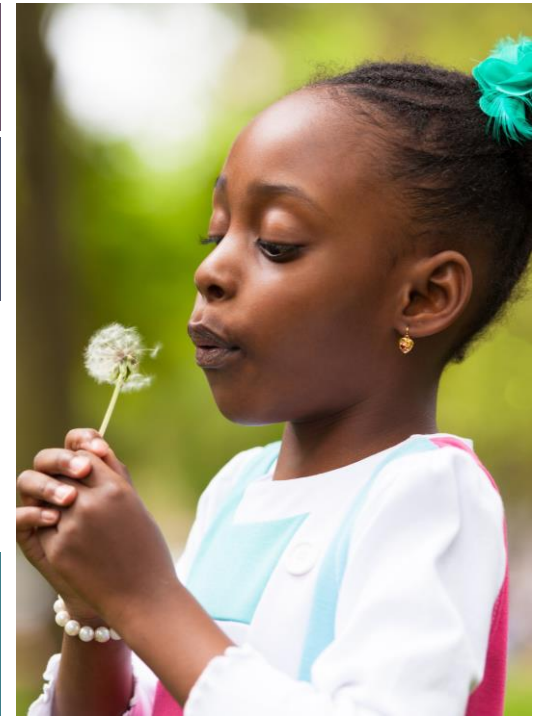
THE SAFETY AND EFFECTIVENESS OF MOST  
OPIOIDS ARE UNESTABLISHED

- Pediatric analgesic trials pose challenges
- Transdermal fentanyl approved in children  $\geq 2$
- Oxycodone ER dosing changes for children  $\geq 11$

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



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.

# 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
- At end-of-life
- Substance use disorder



# WHEN TO CONSIDER A TRIAL OF AN OPIOID

## ADD YOUR CASE STUDY TITLE HERE

- Add your case study data points here
- And here
- And here

## ADD YOUR CASE STUDY TITLE HERE

- Add your case study data points here
- And here
- And here

# INFORMED CONSENT

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

ANALGESIC AND FUNCTIONAL GOALS OF TREATMENT

EXPECTATIONS

POTENTIAL RISKS

ALTERNATIVES

PATIENT'S  
UNDERSTANDING

PATIENT'S DECISION



# PATIENT PROVIDER AGREEMENT (PPA)

## REINFORCE EXPECTATIONS FOR APPROPRIATE AND SAFE OPIOID USE

- Clarify treatment plans and 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) and pill counts
  - Refill procedure
  - Identify behaviors indicating need for discontinuation
  - Exit strategy
  - Signed by both

# PATIENT PROVIDER AGREEMENT (PPA) 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 these behaviors merits **investigation**:  
proceed with caution



## CHAPTER 5

# MANAGING PATIENTS ON OPIOID ANALGESICS

# INITIATING OPIOIDS

- Begin a therapeutic trial with an Immediate Release (IR) opioid
- Prescribe the lowest effective dosage
- Use caution at any dosage, but particularly when:
  - Increasing dosage to  $\geq 50$  morphine milligram equivalents (MME)/day
  - Carefully justify a decision to titrate dosage to  $\geq 90$  MME/day
- 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 (if indicated) and bowel regimen
- 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 3 months; if benefits do not outweigh harms, optimize other therapies and work to taper and discontinue

There are differences in benefit, risk and expected outcomes for patients with chronic pain and cancer pain, as well as for hospice and palliative care patients.

# ONGOING AND LONG-TERM MANAGEMENT OF PATIENTS ON OPIOID ANALGESICS

## PERIODIC REVIEW OF PAIN

- Is the patient making progress toward functional goals?
- Reset goals if required or indicated; develop reasonable expectations
- Monitor for breakthrough pain
- Review adverse events/side effects at each visit
  - Evaluate bowel function
  - Screen for endocrine function as needed
  - Report adverse events to the FDA website
  - Implement opioid rotation, as indicated

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

# ONGOING AND LONG-TERM MANAGEMENT OF PATIENTS ON OPIOID ANALGESICS

## 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

## DISCONTINUING AND TAPERING

- When is opioid therapy no longer necessary?



# MONITORING PAIN AND SUBSTANCE USE DISORDER

## PAIN – 5 A's

- **A**nalgesia
- **A**ctivity/Function
- **A** aberrant/problematic behavior, not present
- **A**dverse events
- **A**ffect

## SUD – 5 C's

- **C**ontrol, loss of
- **C**ompulsive use
- **C**raving drug
- **C**ontinued use
- **C**hronic problem

# WHEN TO MOVE FROM IR TO ER/LA OPIOIDS

## 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



# CONSIDERATIONS FOR CHANGE FROM IR TO ER/LA OPIOIDS

## DRUG AND DOSE SELECTION IS CRITICAL

Some ER/LA opioids or dosage forms are only recommended for opioid-tolerant patients

- ANY strength of transdermal fentanyl or hydromorphone ER
- Certain strengths/ doses of other ER/LA products (check drug prescribing information)

## MONITOR PATIENTS CLOSELY FOR RESPIRATORY DEPRESSION

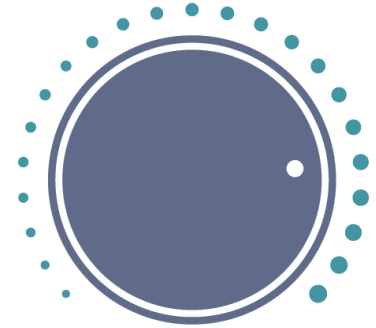
- Especially within 24 – 72 hours of initiating therapy and increasing dosage

## 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/remis/Opioid\\_analgesic\\_2018\\_09\\_18\\_FDA\\_Blueprint.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/remis/Opioid_analgesic_2018_09_18_FDA_Blueprint.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 progression

SOURCE: Yi P, Prybylkowski 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
- 25 mcg transdermal fentanyl/hour
- 30 mg oral oxycodone/day
- 8 mg oral hydromorphone/day
- 25 mg oral oxymorphone/day
- An equianalgesic dose of another opioid

**IMPORTANT**

**FOR 1 WEEK  
OR LONGER**



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

Products restricted to opioid tolerant individuals include transdermal fentanyl (Duragesic) and hydromorphone (Exalgo).

SOURCE: The Opioid Analgesics Risk Evaluation & Mitigation Strategy product search  
<https://opioidanalgesicrems.com/RpcUI/products.u>

# 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 organism 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



# 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 (EDT)

Many different versions:

Published

Online

Online interactive

Smart-phone 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



## START WITH AN EDT FOR ADULTS

DRUG	EQUIANALGESIC DOSE		USUAL STARTING DOSE	
	SC/IV	PO	PARENTERAL	PO
<b>Morphine</b>	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)
<b>Oxycodone</b>	NA	20 mg	NA	5 – 10 mg q3 – 4hr (2.5 mg)
<b>Hydrocodone</b>	NA	30 mg	NA	5 mg q3 – 4hr (2.5 mg)
<b>Hydromorphone</b>	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)

# MU-OPIOID RECEPTORS AND INCOMPLETE CROSS TOLERANCE

MU-OPIOIDS BIND TO MU RECEPTORS

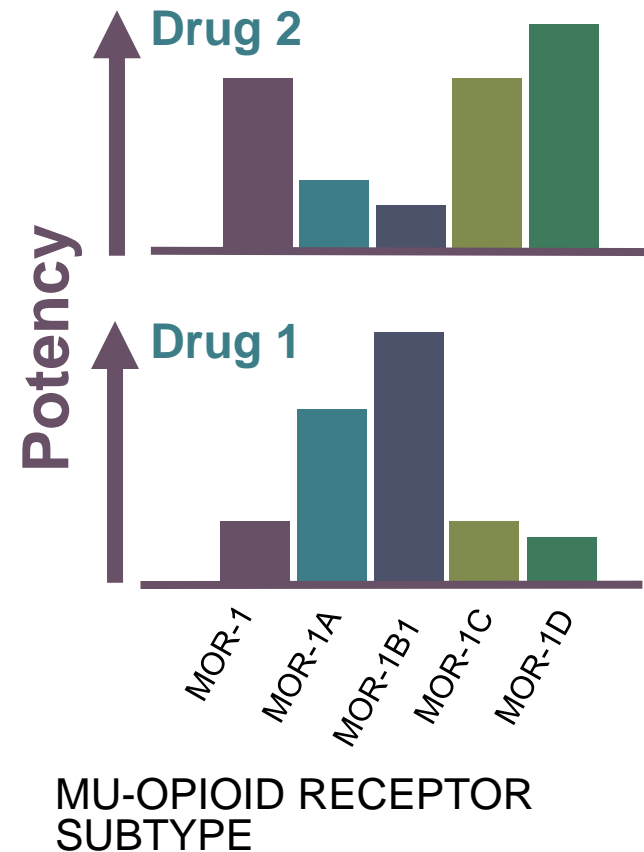
MANY MU RECEPTOR SUBTYPES

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

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 elderly or medically frail

CLOSER TO 25% REDUCTION  
IF PATIENT

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



\*75% – 90% reduction for methadone

# GUIDELINES FOR OPIOID ROTATION *(continued)*



## IF SWITCHING TO METHADONE:

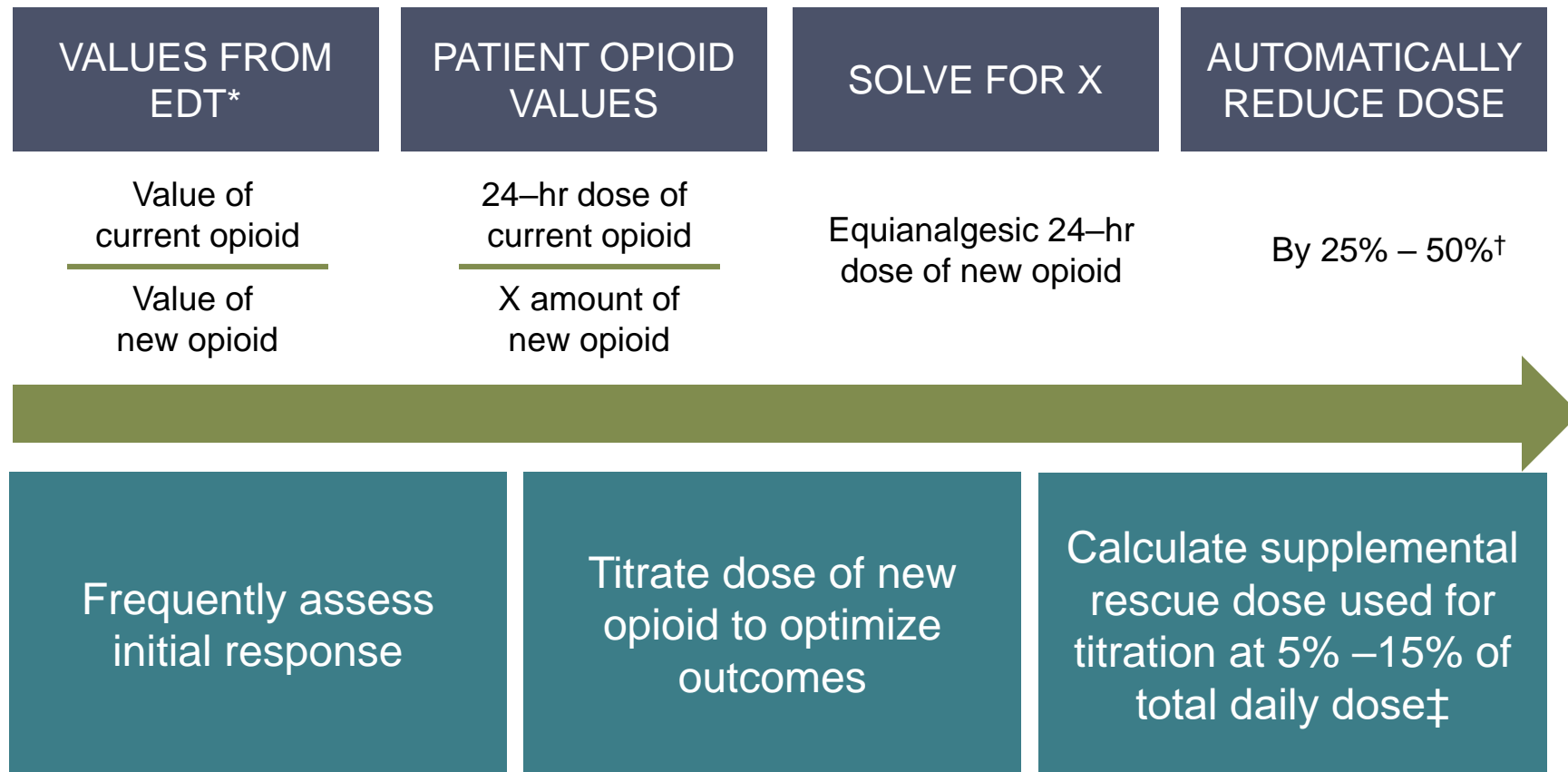
- Standard Equianalgesic Dosing Tables are less helpful in opioid rotation to methadone
- For opioid tolerant patients, methadone doses should **not** exceed 30 – 40 mg/day upon rotation
  - Consider inpatient monitoring, including serial EKG monitoring
- For opioid-naïve patients, do **not** give methadone as an initial drug

## IF SWITCHING TO TRANSDERMAL:

- **Fentanyl:** calculate dose conversion based on equianalgesic dose ratios included in the drug package insert



# GUIDELINES FOR OPIOID ROTATION: SUMMARY



\* 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

# 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 ADDING

- PRN IR opioid trial based on analysis of benefit versus risk
  - There is a risk for aberrant/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

# ABUSE-DETERRENT FORMULATION (ADF) OPIOIDS

- Response to growing non-medical-use problem
- An ER/LA opioid with properties to meaningfully deter abuse, even if they do not fully prevent abuse
  - 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



# URINE DRUG TESTING (UDT)



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

## 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



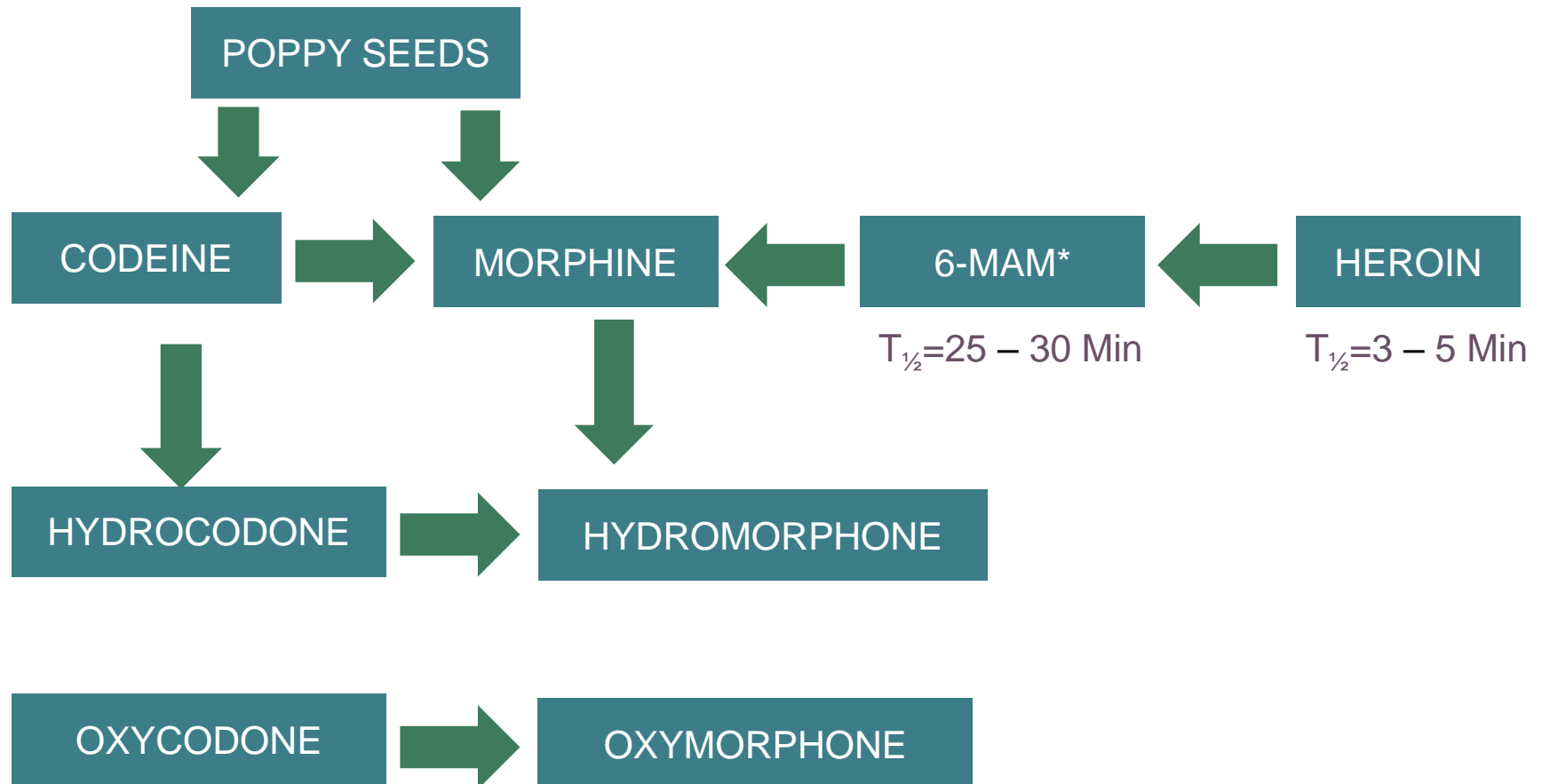
	SCREENING (Office-based)	CONFIRMATORY (Send to lab)
<b>Analysis technique</b>	Immunoassay	GC-MS or HPLC
<b>Sensitivity</b> (power to detect a class of drugs)	Low or none when testing for semi-synthetic or synthetic opioids	High
<b>Specificity</b> (power to detect an individual drug)	Varies (can result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

# 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/pot	1 – 3 hours	1 – 7 days
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
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



# REASONS FOR DISCONTINUING OPIOIDS

PAIN LEVEL  
DECREASE IN  
STABLE PATIENTS

INTOLERABLE AND  
UNMANAGEABLE  
ADVERSE EFFECTS

NO PROGRESS  
TOWARD  
THERAPEUTIC  
GOALS

## MISUSE OR ABERRANT 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

## OUD/SUD RISK ASSESSMENT TOOLS (ONCE TREATMENT BEGINS)



### **PMQ**

Pain Medication  
Questionnaire

### **COMM**

Current Opioid Misuse  
Measure

### **PDUQ**

Prescription Drug Use  
Questionnaire

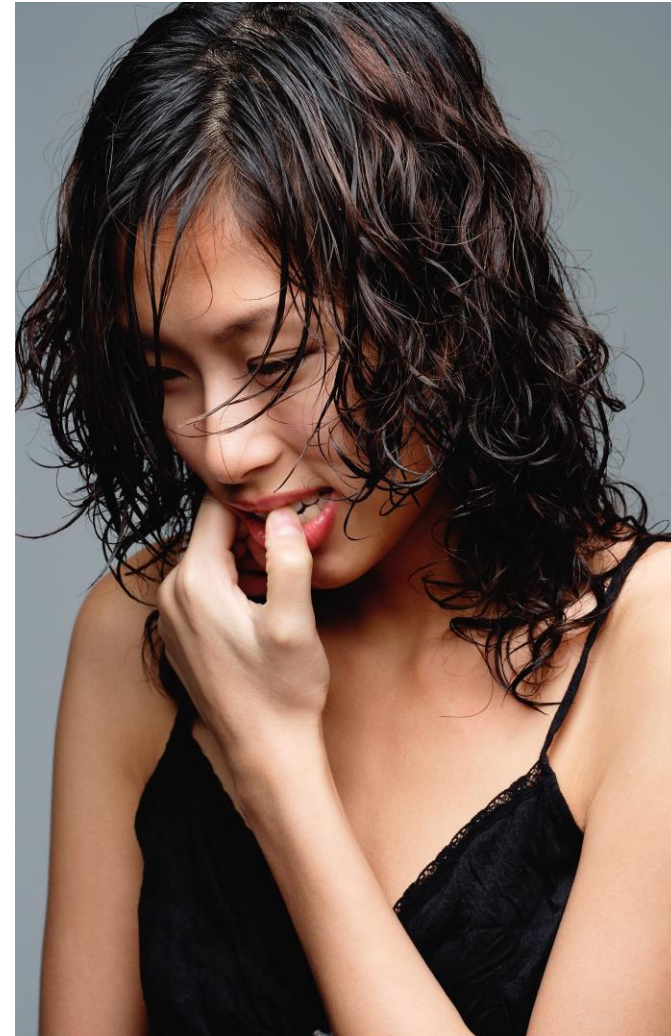
### **SBIRT**

Screening, Brief  
Intervention, and Referral to  
Treatment

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

# TAPER DOSE WHEN DISCONTINUING

- No single approach is appropriate for all patients
- 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)
- If opioid use disorder or a failed taper, refer to an addiction specialist or consider opioid agonist therapy
- Counseling and relaxation strategies needed



## 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.



A healthcare professional, a Black man with a beard, wearing light blue scrubs and a blue stethoscope, is looking down at a clipboard he is holding. He is engaged in a conversation with a patient, whose back is to the camera. The setting appears to be a clinical or hospital environment with shelves in the background.

## CHAPTER 6

# EDUCATING YOUR PATIENTS AND THEIR CAREGIVERS

# COUNSEL PATIENTS ABOUT PROPER USE

- Take opioid as prescribed
- Adhere to dose regimen
- Use least amount of medication necessary for shortest time
- Do not abruptly discontinue or reduce dose; taper safely to avoid withdrawal symptoms
- Properly handle missed doses
- Notify HCP if pain is uncontrolled
- Manage side effects
- Inform HCP of ALL meds being taken
- Never share or sell opioids: can lead to others' deaths, against the law
- Use caution when operating heavy machinery and driving



Read the opioid **drug package insert** received from the pharmacy **every time** an opioid is dispensed



# USE PATIENT COUNSELING DOCUMENT

## What You Need to Know About Opioid Pain Medicines

***This guide is for you!*** Keep this guide and the Medication Guide that comes with your medicine so you can better understand what you need to know about your opioid pain medicine. Go over this information with your healthcare provider. Then, ask your healthcare provider about anything that you do not understand.

### ***What are opioids?***

Opioids are strong prescription medicines that are used to manage severe pain.

### ***What are the serious risks of using opioids?***

- Opioids have serious risks of addiction and overdose.
- **Too much opioid medicine in your body can cause your breathing to stop – which could lead to death.** This risk is greater for people taking other medicines that make you feel sleepy or people with sleep apnea.
- **Addiction** is when you crave drugs (like opioid pain medicines) because they make you feel good in some way. You keep taking the drug even though you know it is not a good idea and bad things are happening to you. Addiction is a brain disease that may require ongoing treatment.

### ***Risk Factors for Opioid Abuse:***

- You have:
  - » a history of addiction

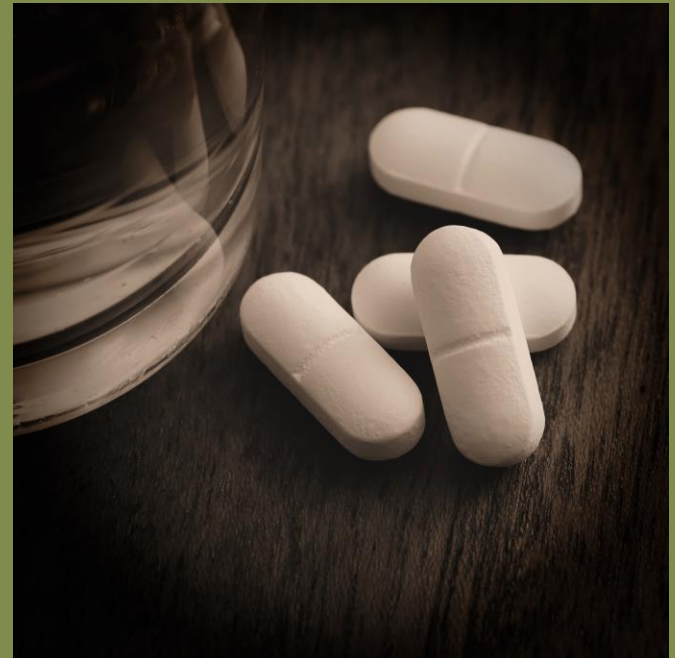
- Take your opioid medicine exactly as prescribed.
- Do not cut, break, chew, crush, or dissolve your medicine. If you cannot swallow your medicine whole, talk to your healthcare provider.
- When your healthcare provider gives you the prescription, ask:
  - » How long should I take it?
  - » What should I do if I need to taper off the opioid medicine (slowly take less medicine)?
- Call your healthcare provider if the opioid medicine is not controlling your pain. Do not increase the dose on your own.
- Do not share or give your opioid medicine to anyone else. Your healthcare provider selected this opioid and the dose just for you. A dose that is okay for you could cause an overdose and death for someone else. Also, it is against the law.
  - Store your opioid medicine in a safe place where it cannot be reached by children or stolen by family or visitors to your home. Many teenagers like to experiment with pain medicines. Use a lock-box to keep your opioid



CLICK TO DOWNLOAD

# PROVIDE ANTICIPATORY GUIDANCE ON OPIOID SIDE EFFECTS AND ADVERSE EVENTS

- Respiratory depression: most serious
- Opioid-induced constipation (OIC): most common
- Sexual dysfunction and other endocrine abnormalities
- Tolerance, physical dependence, hyperalgesia
- Allergic reactions
- Sedation, cognitive impairment
- Falls and fractures
- Sweating, miosis, urinary retention
- Hypogonadism
- Myoclonus (twitching or jerking)
- Addiction in vulnerable patients
- Overdose and death



# WARN PATIENTS

**Never break, chew, crush, or snort an opioid tablet/capsule, or cut or tear patches or buccal films prior to use**

- May lead to rapid release of opioid, causing overdose and death
- If patient is unable to swallow a capsule whole, refer to drug package insert to determine if appropriate to sprinkle contents on applesauce or administer via feeding tube



**Use of CNS depressants or alcohol with opioids can cause overdose and death**

- Use with alcohol may result in rapid release and absorption of a potentially fatal opioid dose, known as “dose dumping”
- Use with other depressants such as sedative-hypnotics (benzodiazepines), anxiolytics, or illegal drugs can cause life-threatening respiratory depression



# OPIOID-INDUCED RESPIRATORY DEPRESSION

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

## SIGNS OF OVERDOSE POISONING **CALL 911**

- Person cannot be aroused or awakened 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



# NALOXONE

## What it is:

- An opioid antagonist administered intranasally (most common) or parenterally
- Reverses acute opioid-induced respiratory depression but will also reverse analgesia; may precipitate acute opioid withdrawal
- No abuse potential

## What to do:

- Discuss an overdose plan with patients
- Consider offering a naloxone prescription to all patients prescribed opioids; some states *require* co-prescribing
- Involve and train family, friends, partners, and/or caregivers in the proper administration of naloxone
- Check to see if pharmacy dispenses it
- Check expiration dates and replace expired naloxone
- In the event of known or suspected overdose **call 911** and administer naloxone

# NALOXONE OPTIONS

- Available as auto-injector, intramuscular injection, or nasal spray
- Cost and insurance coverage vary
- Make use of tutorial videos to demonstrate administration
- Store at room temperature
- Dispose of used containers safely



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,  
<https://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm472923.htm>



# SAFE OPIOID STORAGE AND DISPOSAL



## STEP 1: MONITOR

- Note how many pills are in each prescription
- Keep track of dosage and refills
- Make sure everyone in the home knows (if appropriate)

## STEP 2: SECURE

- Keep meds in a safe place (locked cabinet or box)
- Store away from children, family, visitors, and pets
- Encourage parents of your teen's friends to secure their prescription

## STEP 3: DISPOSE

- Discard expired or unused meds
- Consult drug package insert for best disposal method

SOURCE: McDonald E, Kennedy-Hendrick A, McGinty E, Shields W, Barry C, Gielen A. Pediatrics. 2017;139(3):e20162161

# WHERE AND HOW TO DISPOSE OF UNUSED OPIOIDS



## Authorized Collection Sites

- Use the DEA disposal locator website to find sites near you:  
<https://apps.dea diversion.usdoj.gov/pubdispsearch>
- Search Google Maps for "drug disposal nearby"

## Options

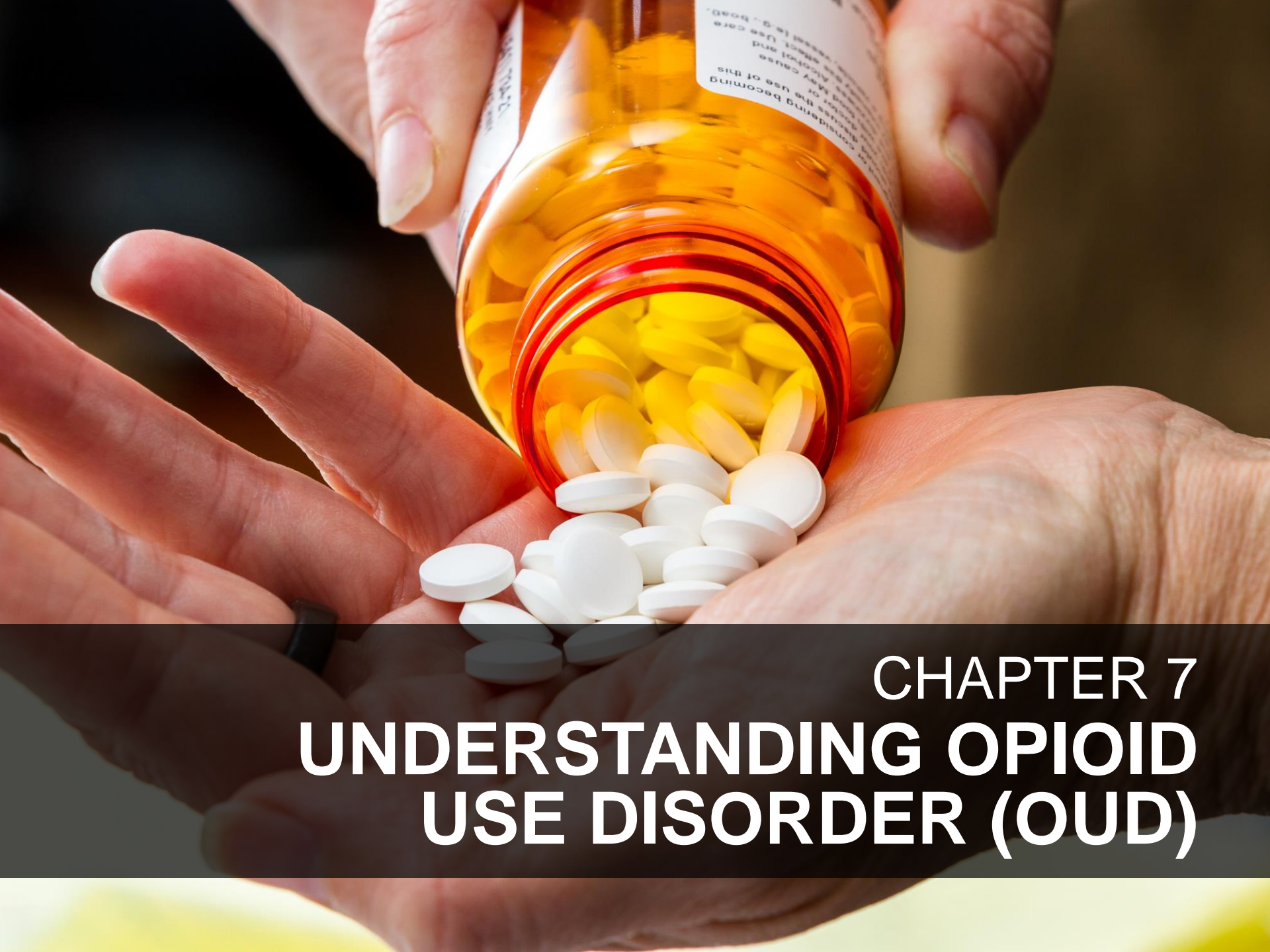
- Drug take-back days (local pharmacies or local law enforcement)
- Flush
  - Fold patch in half so sticky sides meet, then flush
- Trash (mix with noxious element like kitty litter or compost)



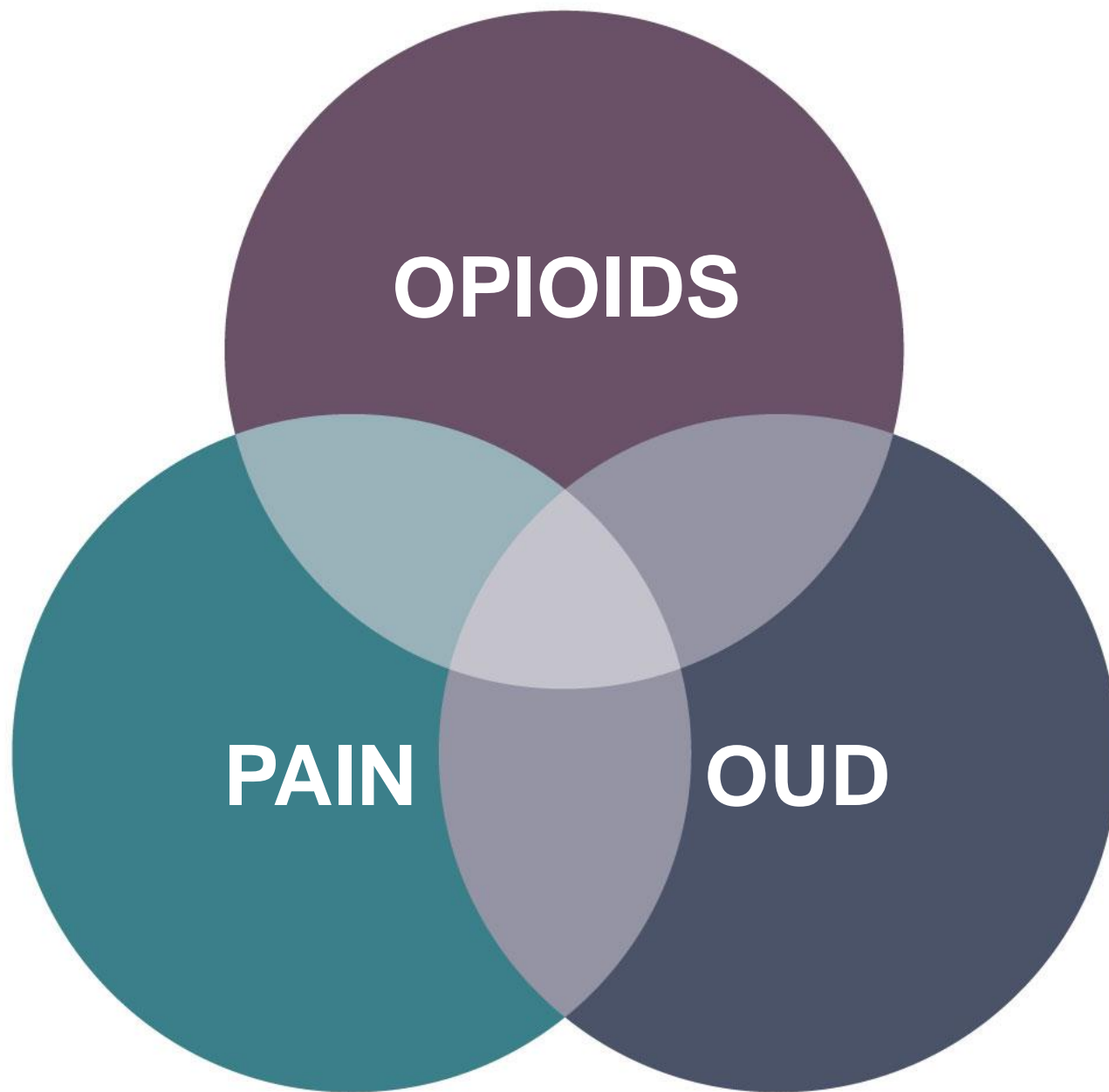
## Mail-Back Packages

- Obtain from authorized collectors

SOURCES. Department of Justice, Diversion Control Division, Disposal Act: General Public Fact Sheet (June 2018), [https://www.dea diversion.usdoj.gov/drug\\_disposal/fact\\_sheets/disposal\\_public\\_06222018.pdf](https://www.dea diversion.usdoj.gov/drug_disposal/fact_sheets/disposal_public_06222018.pdf);  
FDA. Where and How to Dispose of Unused Medicines, <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm101653.htm>



## CHAPTER 7 UNDERSTANDING OPIOID USE DISORDER (OUD)

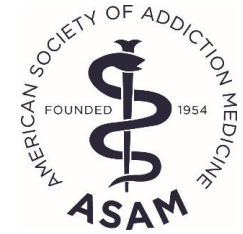


# OPIOIDS

## WHAT IS THE RISK FOR MY PATIENT?

- Risk of opioid use disorder in patients on chronic opioid therapy (COT) for chronic non-cancer pain (CNCP) is up to **26%**
- Risk is always highest with past history of substance use disorder (SUD) or psychiatric comorbidity

SOURCE: Boscarino, J. Addictive Dis., 2011;30(3):185-194, <http://www.tandfonline.com/doi/abs/10.1080/10550887.2011.581961>



# WHAT IS ADDICTION?

## PRACTICAL DEFINITION:

Addiction is the continued use of drugs or activities, despite knowledge of continued **harm** to one's self 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.



# SUBSTANCE USE DISORDER: DSM-5 CRITERIA

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

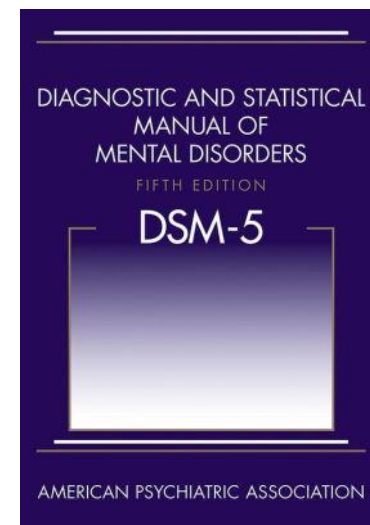
1. Tolerance \*
2. Withdrawal \*

## LOSS OF CONTROL

3. Using larger amounts and/or for longer periods
4. Inability to cut down on or control use
5. Increased time spent obtaining, using, or recovering
6. Craving/compulsion

## USE DESPITE NEGATIVE CONSEQUENCES

7. Role failure at work, home, school
8. Social, interpersonal problems
9. Reducing social, work, recreational activity
10. Physical hazards
11. Physical or psychological harm



- 2 – 3 = mild
- 4 – 5 = moderate
- $\geq 6$  = severe

**\* Not valid if opioid is taken as prescribed**



# PAIN, OUD, AND OPIOIDS

The DSM-5 criteria for opioid use disorder may be misleading in the context of *prescribed opioids* for the treatment of pain.

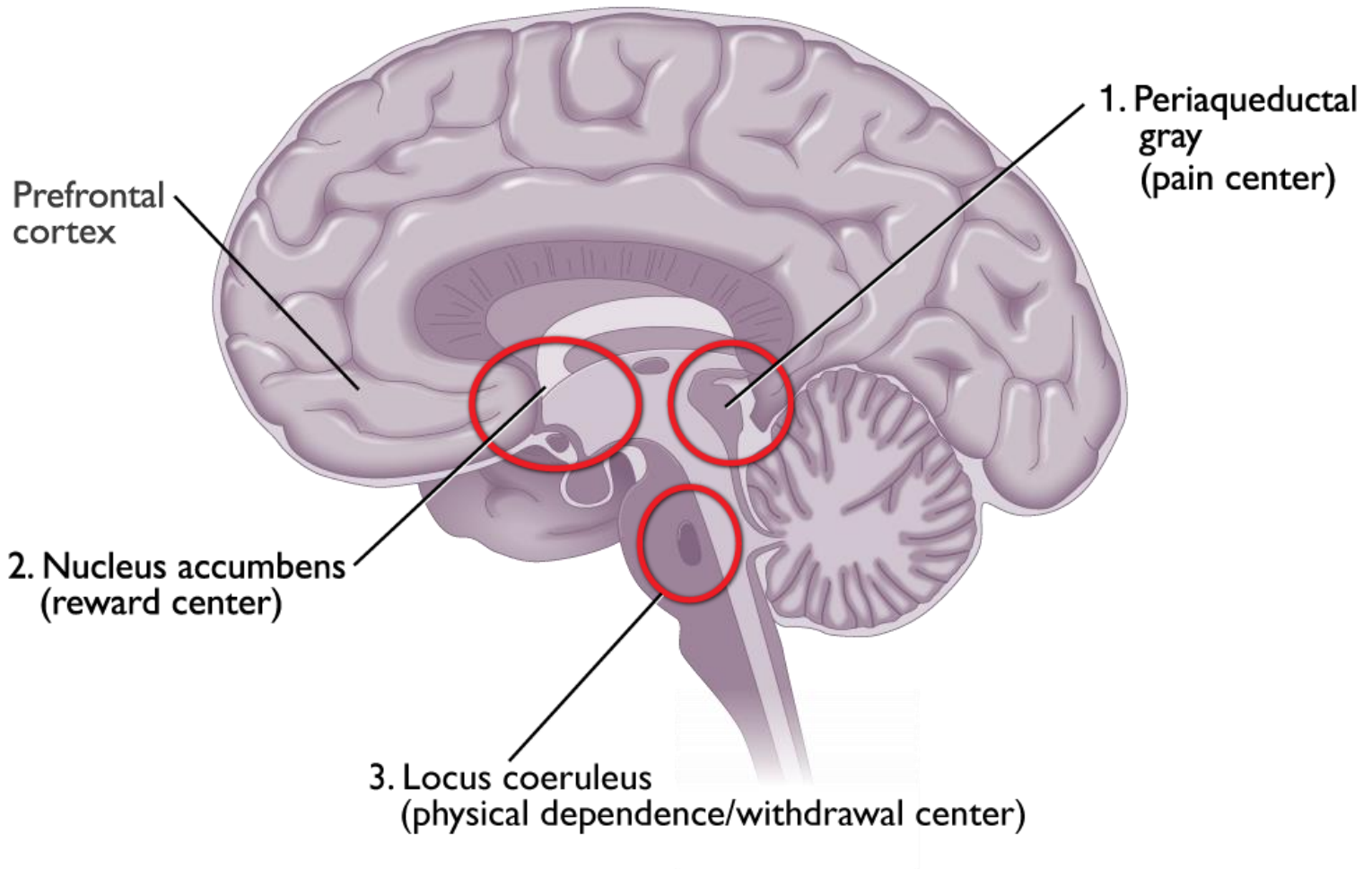
**Harm may be masked under these conditions.**

**Clinical judgement is key.**

# WORDS MATTER



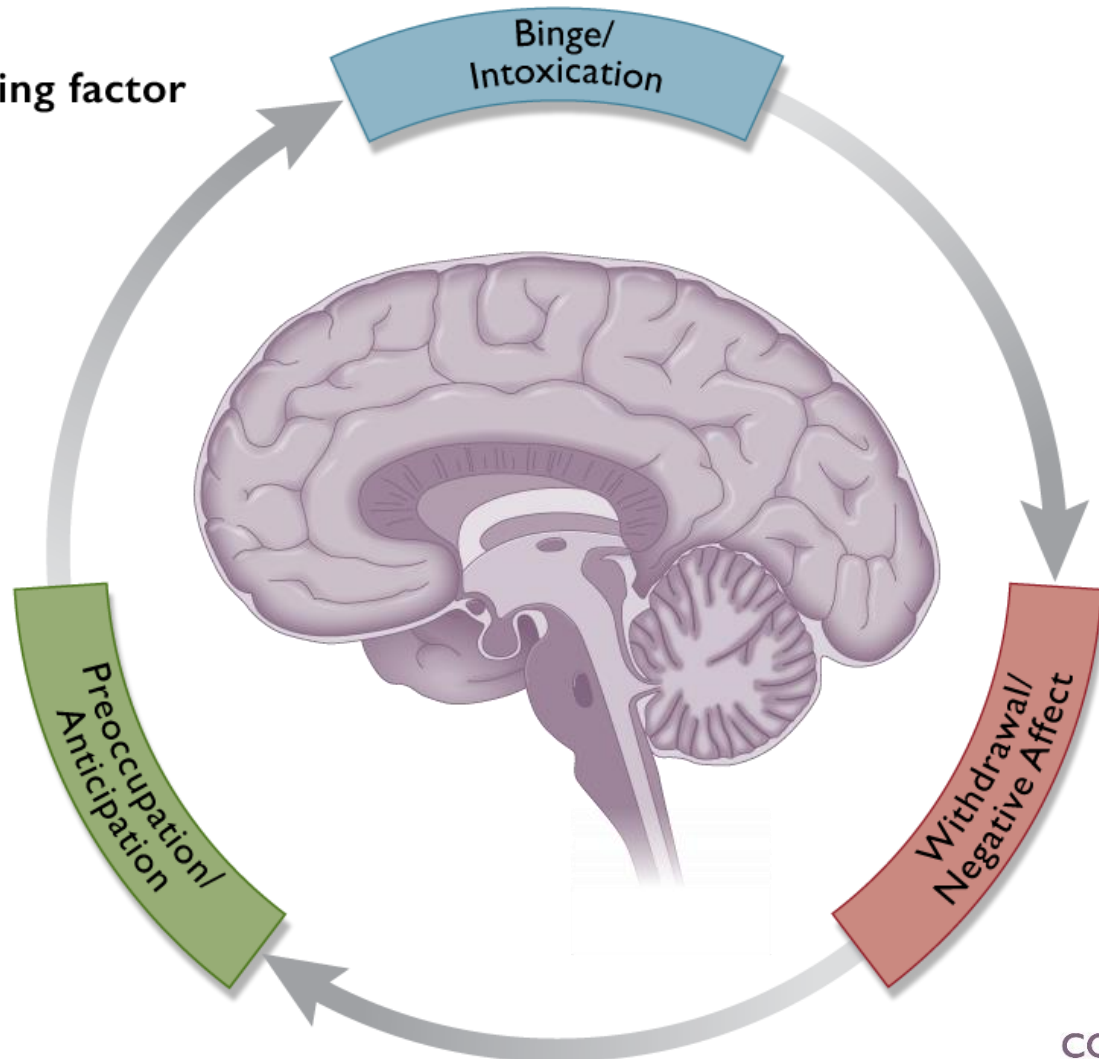
# OPIOID RECEPTORS IN THE BRAIN: RELATIONSHIP TO ANALGESIA, OUD, AND WITHDRAWAL



# THE CYCLE OF SUBSTANCE USE DISORDER

## NEUROTRANSMITTERS

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



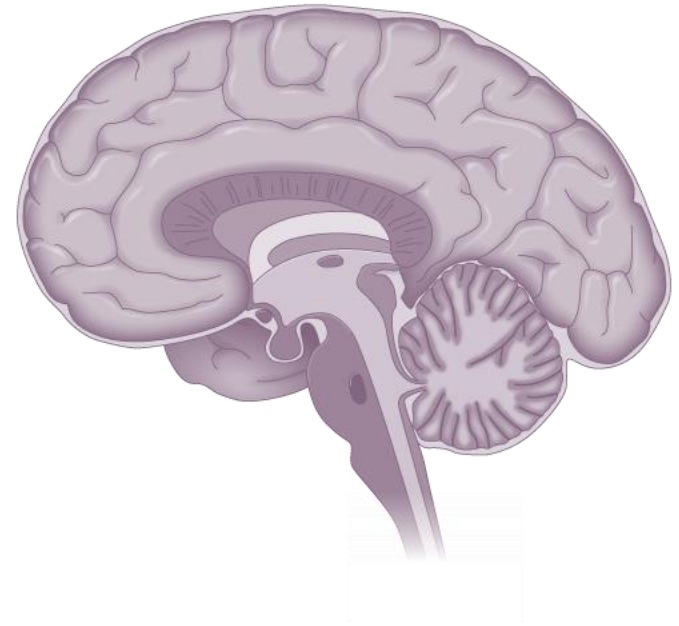
# EVERYONE IS VULNERABLE, BUT WHO IS *MOST* VULNERABLE TO OPIOID MISUSE OR OUD?

Those with low hedonic tone

Those with psychiatric comorbidities

Those with a genetic predisposition to substance abuse (family history)

The probability of long-term opioid use increases most sharply in the first days of therapy, particularly after 5 days or 1 month of opioids has been prescribed.



# TREATMENT OF OPIOID USE DISORDER

- Medication options for addiction treatment (MAT)
  - Methadone (Schedule II)
  - Buprenorphine (Schedule III)
  - Naltrexone (not a controlled substance)
- Supplementary psychosocial and recovery support services
  - Housing, childcare, support groups, employment services
- Temporal considerations
  - Frequency of administration (daily versus long-acting formulations)
  - Length of treatment
    - No recommended time period for treatment
    - Patients who discontinue MAT and resume street opioids risk overdose and death

# TREATING PAIN IN THE PATIENT WITH OUD

- Remember that untreated pain is a trigger for relapse
- Must address *both* pain and opioid use disorder
- Avoid other potentially problematic medications
- Consider a multidisciplinary pain program

- Consider buprenorphine for both pain and OUD
- Consider using opioids that do not metabolize to other prescribed medications
- Enlist patient's family/ significant other to secure and dispense opioids
- Recommend an active recovery program
- Remember to use UDT, PDMP, pill counts, PPA

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



# OPIOID ANALGESICS WITH BENZODIAZEPINES, NICOTINE, AND ALCOHOL

- More than 30% of opioid overdoses involve benzodiazepines (BZDs); both are CNS depressants (avoid concurrent prescribing)
- Nicotine and alcohol use are risk factors for misuse of prescribed opioids
- Nicotine users are co-prescribed BZDs and muscle relaxants with opioids to a greater extent than non-nicotine users



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

# BUPRENORPHINE

- If using for pain, you **do not** need a Buprenorphine waiver
- If using to treat OUD, you **do** need a waiver
- The most commonly prescribed pharmacotherapy for the treatment of OUD
- Partial mu-agonist with “plateau effect” for respiratory depression
- Good efficacy and safety profile
- FDA-approved buprenorphine products for pain:
  - Butrans: 7-day transdermal patch
  - Belbuca: buccal mucosal film; BID dosing

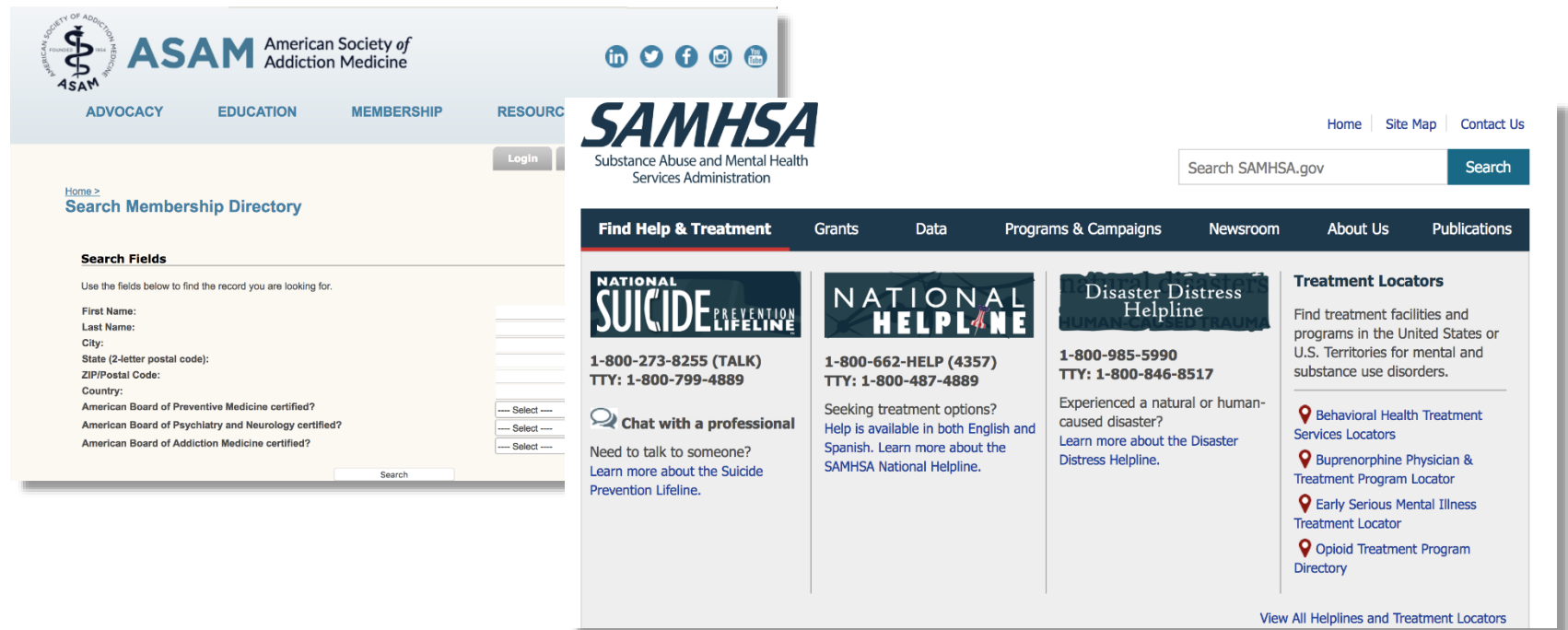
# REFERRALS AND TREATMENT CENTERS

ASAM, SAMHSA, and AAP are all helpful referral resources.

ASAM resources: <https://www.asam.org/resources/resource-links>

SAMHSA locator: <https://findtreatment.samhsa.gov/locator>

AAP locator: <https://www.aap.org/patients/find-a-specialist/>



The image displays two screenshots of professional websites. The left screenshot shows the ASAM (American Society of Addiction Medicine) website, featuring a search membership directory with fields for name, location, and certification. The right screenshot shows the SAMHSA (Substance Abuse and Mental Health Services Administration) website, highlighting helpline services like the National Suicide Prevention Lifeline and the National Helpline, along with treatment locators for various mental health services.

**ASAM American Society of Addiction Medicine**

ADVOCACY EDUCATION MEMBERSHIP RESOURCE

Home > Search Membership Directory

**Search Fields**

Use the fields below to find the record you are looking for.

First Name: \_\_\_\_\_  
Last Name: \_\_\_\_\_  
City: \_\_\_\_\_  
State (2-letter postal code): \_\_\_\_\_  
ZIP/Postal Code: \_\_\_\_\_  
Country: \_\_\_\_\_  
American Board of Preventive Medicine certified? ☐ Select  
American Board of Psychiatry and Neurology certified? ☐ Select  
American Board of Addiction Medicine certified? ☐ Select

Search

**SAMHSA**  
Substance Abuse and Mental Health Services Administration

Home | Site Map | Contact Us

Search SAMHSA.gov Search

**Find Help & Treatment** Grants Data Programs & Campaigns Newsroom About Us Publications

**NATIONAL SUICIDE PREVENTION LIFELINE**  
1-800-273-8255 (TALK)  
TTY: 1-800-799-4889

**Chat with a professional**  
Need to talk to someone?  
Learn more about the Suicide Prevention Lifeline.

**NATIONAL HELPLINE**  
1-800-662-HELP (4357)  
TTY: 1-800-487-4889

Seeking treatment options?  
Help is available in both English and Spanish. Learn more about the SAMHSA National Helpline.

**Disaster Distress Helpline**  
1-800-985-5990  
TTY: 1-800-846-8517

Experienced a natural or human-caused disaster?  
Learn more about the Disaster Distress Helpline.

**Treatment Locators**  
Find treatment facilities and programs in the United States or U.S. Territories for mental and substance use disorders.

- Behavioral Health Treatment Services Locators
- Buprenorphine Physician & Treatment Program Locator
- Early Serious Mental Illness Treatment Locator
- Opioid Treatment Program Directory

View All Helplines and Treatment Locators


# Our session stops here, but your review continues...


For detailed information, prescribers can refer to prescribing information available online via DailyMed at [www.dailymed.nlm.nih.gov](http://www.dailymed.nlm.nih.gov) or <https://opioidanalgesicrems.com/RpcUI/products.u>

Please visit the CO\*RE Tools Repository  
<http://core-rems.org/opioid-education/tools/>

# A REFERENCE FOR YOU: CO\*RE's ONLINE ADAPTIVE LEARNING COURSE

[https://www.medscape.org/viewarticle/919844?src=acdmprt\\_rpc\\_919844](https://www.medscape.org/viewarticle/919844?src=acdmprt_rpc_919844)

R Heyden 

SEARCH 

**Medscape** Monday, November 18, 2019

NEWS & PERSPECTIVE   DRUGS & DISEASES   CME & EDUCATION   ACADEMY   VIDEO

**PAIN MANAGEMENT AND OPIOIDS: BALANCING RISKS AND BENEFITS-UPDATED 2019-20**

From [Medscape Education Neurology & Neurosurgery](#)

CME / ABIM MOC / CE  
**REAL CO\*RE**

**Pain Management and Opioids: Balancing Risks and Benefits**

Authors: REAL CO\*RE Contributing Faculty [Faculty and Disclosures](#)

CME / ABIM MOC / CE Released: 10/30/2019   Valid for credit through: 10/30/2020

**THANK YOU!**  
**WWW.CORE-REMS.ORG**

