Pain Management and Opioids:

Balancing Risks and Benefits

PRESENTED BY

CO*RE

UPDATED January 2020

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FACULTY INFORMATION

Annette Carron, D.O., CMD, FACOI, FAAHPM

Dr. Annette Carron serves as attending physician in the department of Geriatrics and Palliative Care at Henry Ford Macomb Hospital in Clinton Township, MI. She is a certified medical director, certified in hospice and palliative medicine as well as Geriatrics and Internal Medicine. She has spoken frequently on pain management, hospice and palliative care, including helping present the American Medical Association Educating Physicians on End-of-Life Care (EPEC) curriculum. Dr. Carron is also Assistant Clinical Professor Internal Medicine at Michigan State University College of Osteopathic Medicine and serves as current president of the American College of Osteopathic Internists.

AMERICAN OSTEOPATHIC ASSOCIATION

TREATING OUR FAMILY AND YOURS

DISCLOSURE:

Dr. Annette Carron has nothing to disclose.

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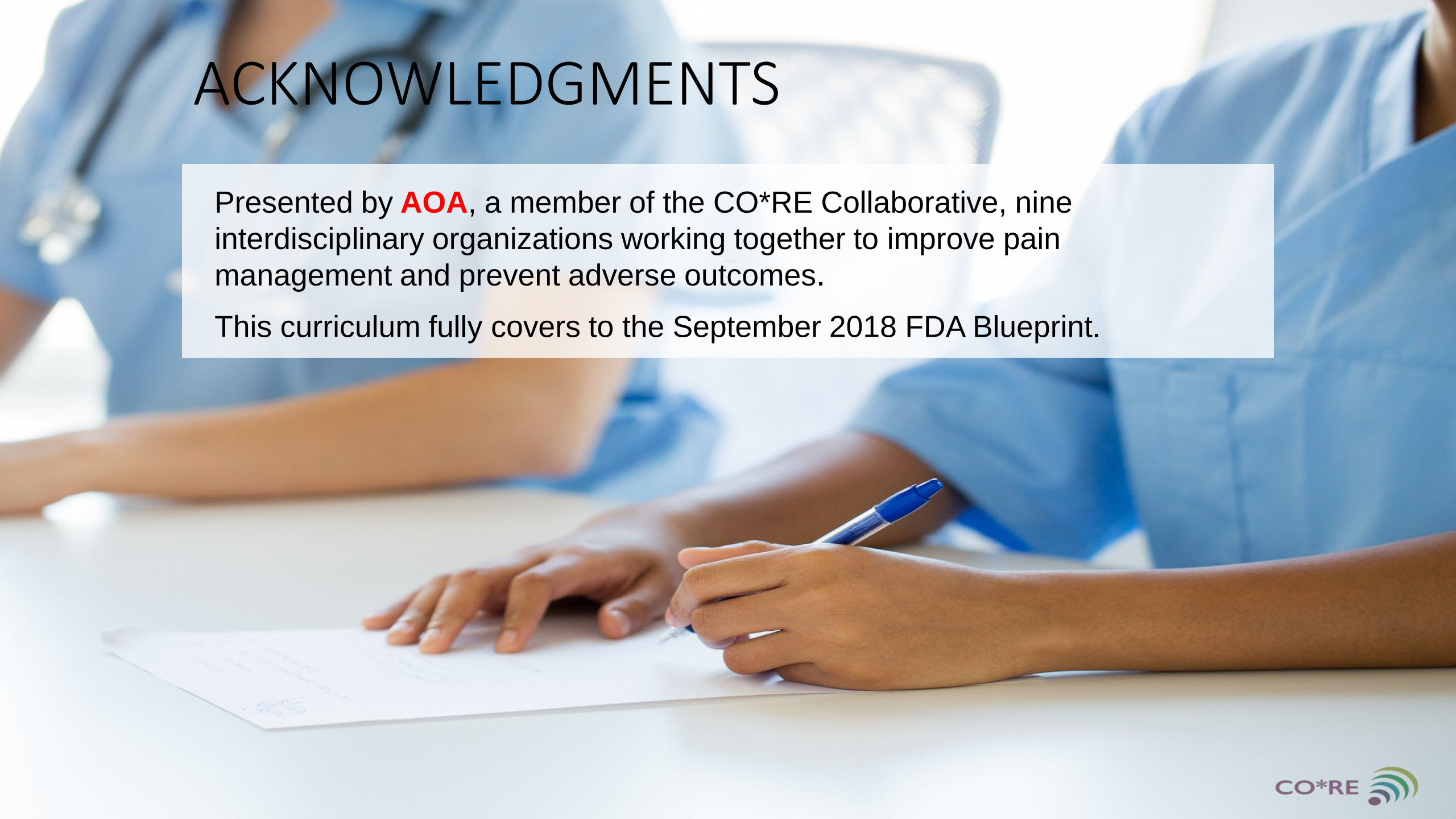
ACKNOWLEDGMENTS



Presented by **AOA**, 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

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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.*

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WHY ARE WE HERE?

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CO*RE STATEMENT

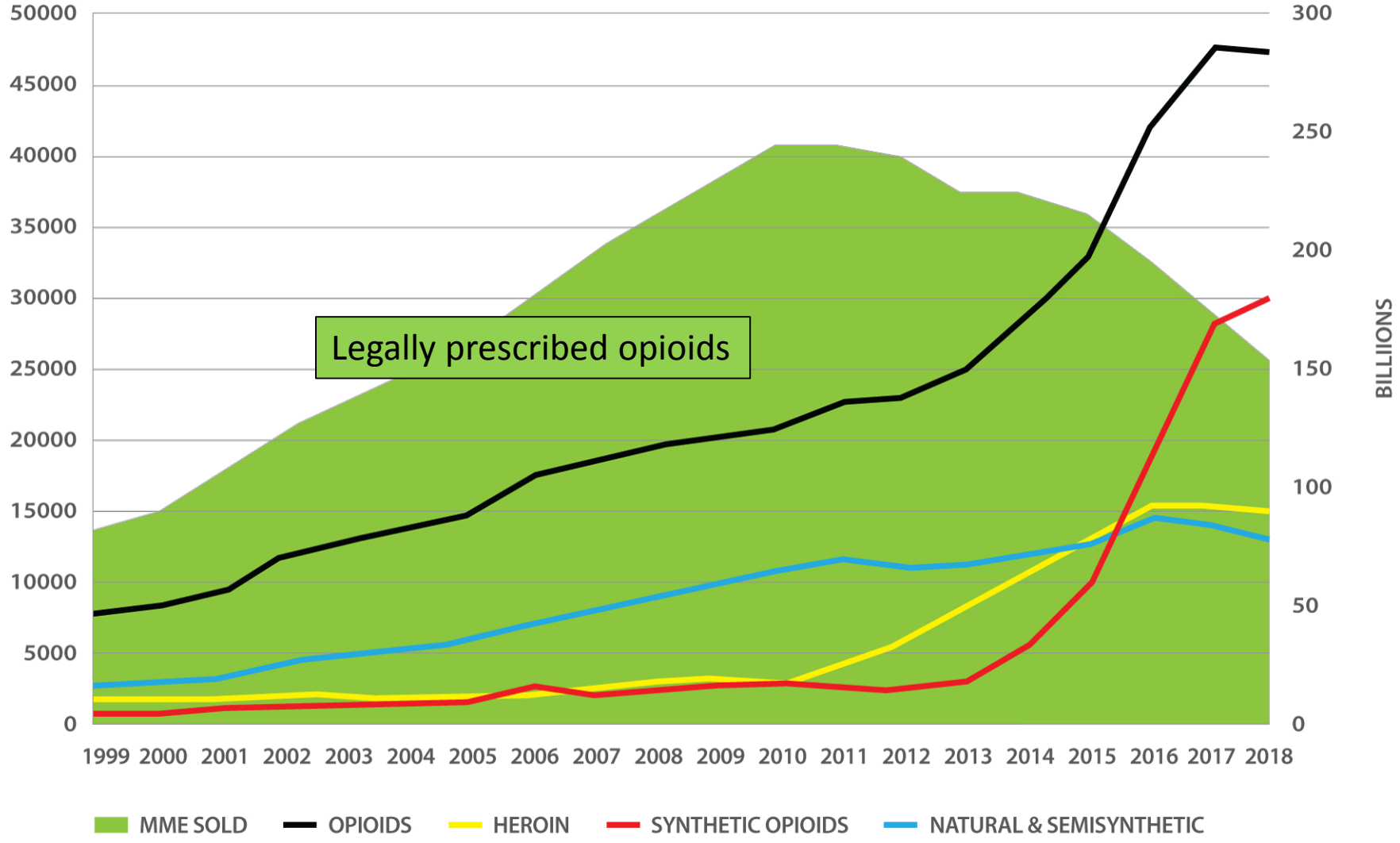
Misuse, abuse, diversion, addiction, and overdose of opioids in the United States have created a serious public health epidemic.

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



SOURCE: CDC Opioid Overdose Death data, IQVIA opioid prescribing data, Sullum J
https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

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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 ≤ 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 ≤ 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.

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Photo source: New Hampshire State Police Forensic Laboratory

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

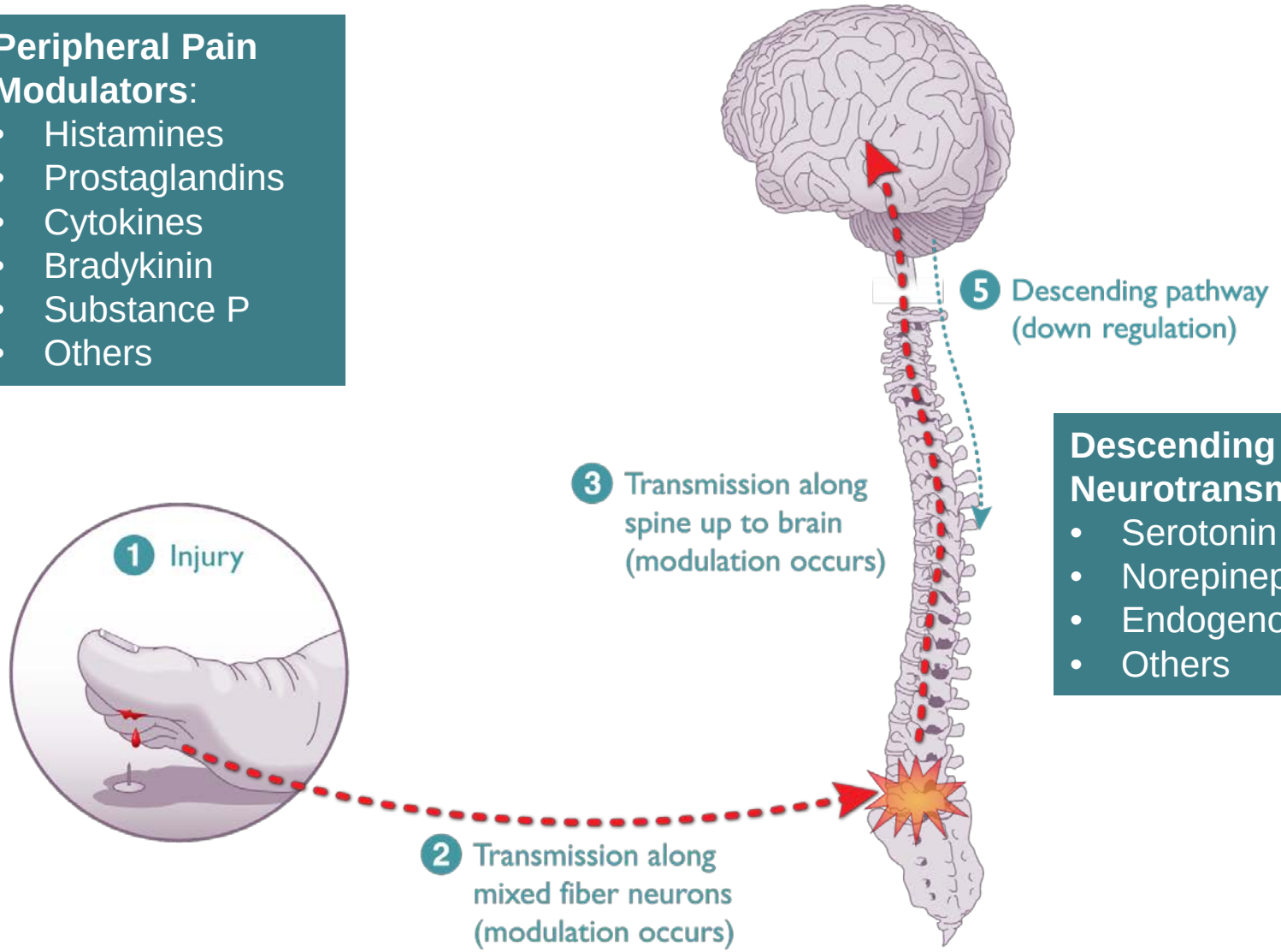
- Analgesia
  - Reliable pain control
  - Quick analgesia (particularly with Immediate Release)
- Continuous, predictable (with Extended-Release/Long-Acting) Improved function
- Improved quality of life

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



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

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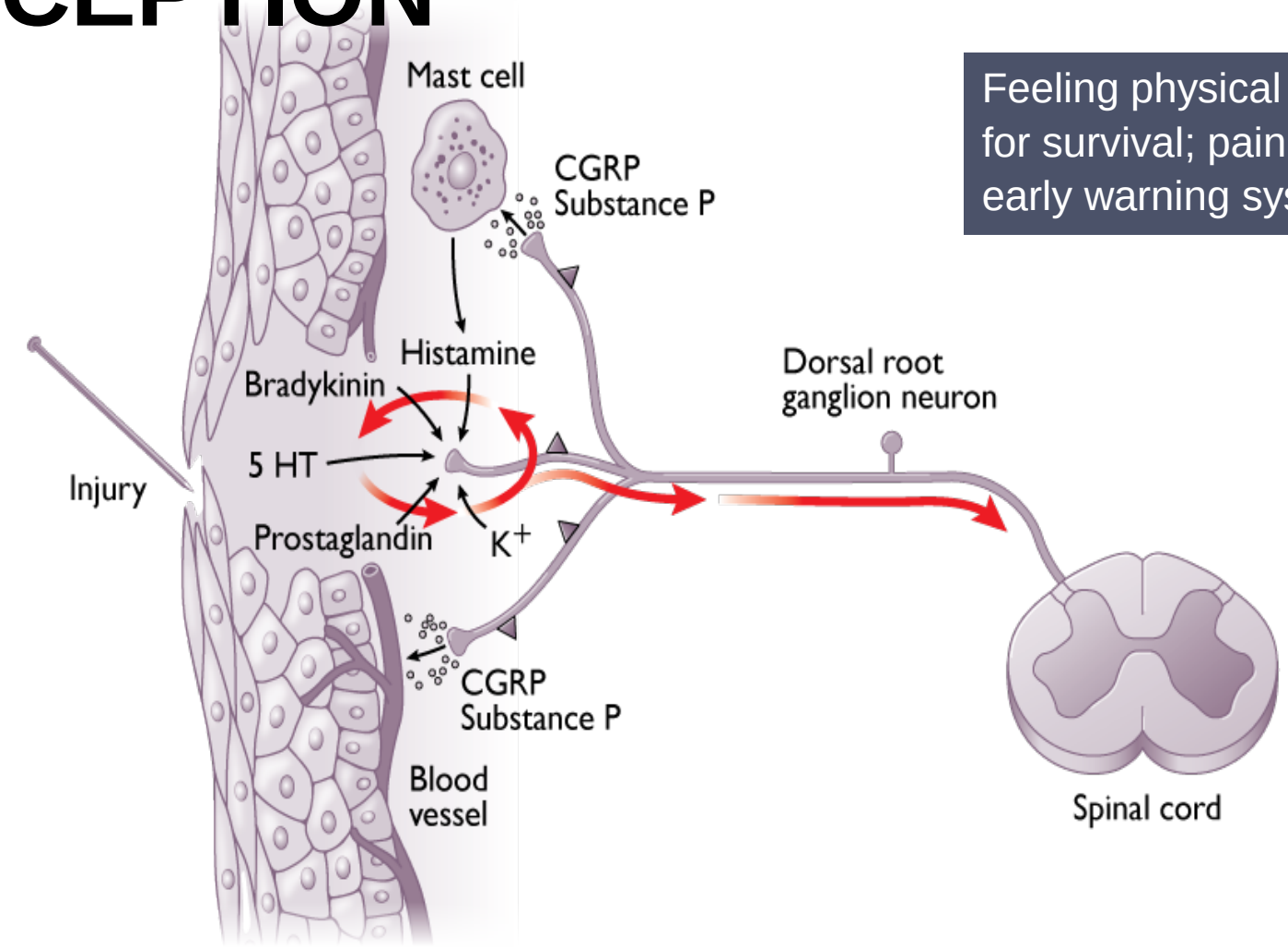
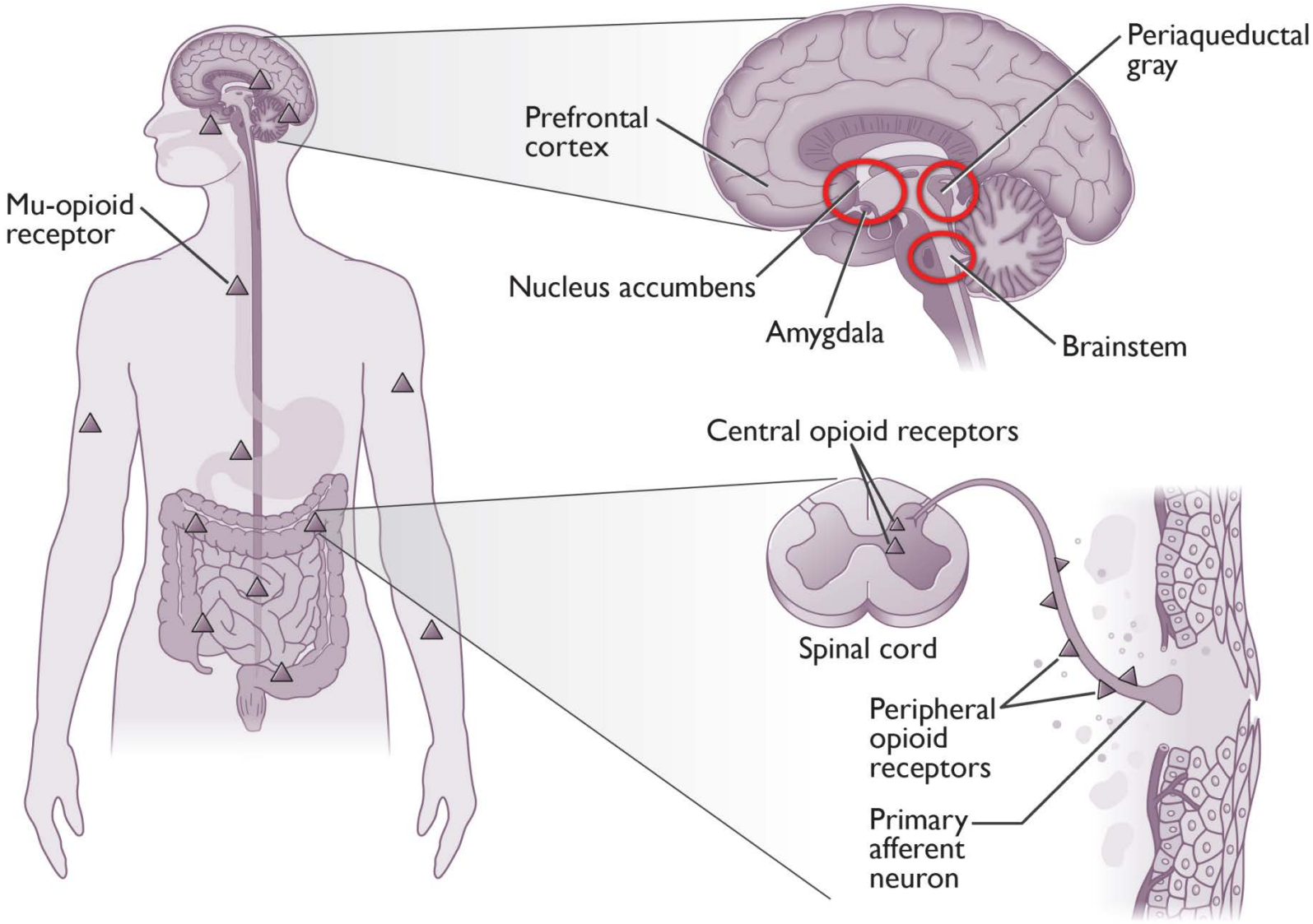
MEDIATORS OF PERIPHERAL NOCICEPTION



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



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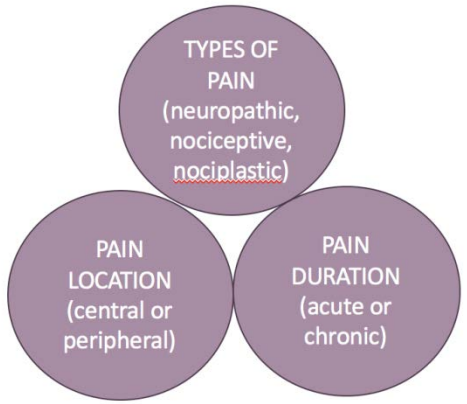
TYPES OF PAIN

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; *typically* chronic	Primary injury and secondary effects
Postoperative pain, sports injuries, arthritis, sickle cell disease, mechanical low back pain	Fibromyalgia, irritable bowel syndrome, non-specific low back pain	Post-herpetic neuralgia, trigeminal neuralgia, distal polyneuropathy, CRPS, neuropathic low back pain	

Possible development of chronic pain after an acute injury.



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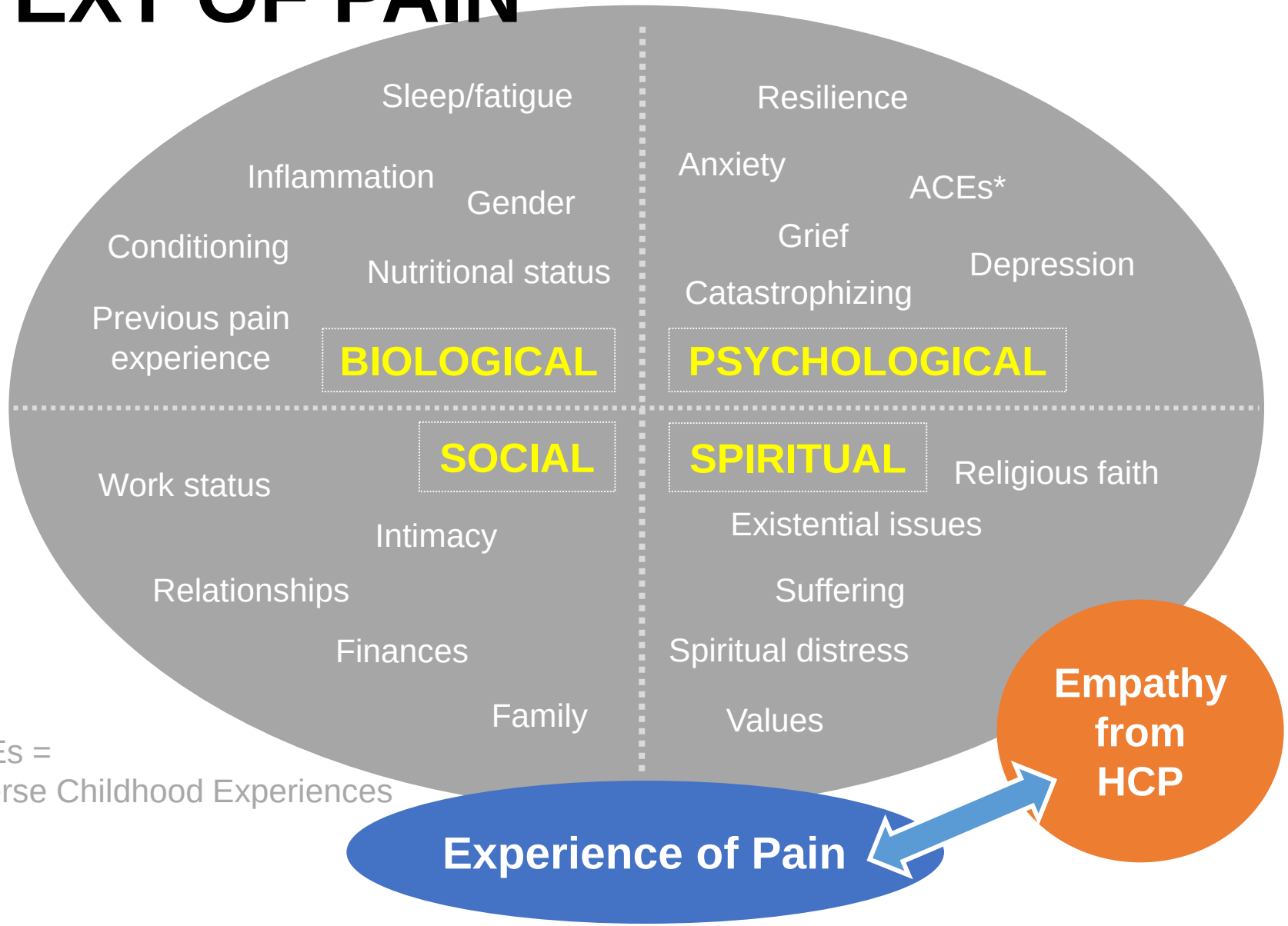
THE BIOPSYCHOSOCIAL SPIRITUAL CONTEXT OF PAIN



*ACEs =
Adverse Childhood Experiences

CATASTROPHIZING

	Not at all	To a slight degree	To a moderate degree	To a great degree	All the time
ll the time about whether the pain will end	0	1	2	3	4
an't go on	0	1	2	3	4
ble and I think it's never going to get any	0	1	2	3	4
l and I feel that it overwhelms me	0	1	2	3	4
an't stand it anymore	0	1	2	3	4
e afraid that the pain will get worse	0	1	2	3	4
inking of other painful events	0	1	2	3	4
sly want the pain to go away	0	1	2	3	4
eem to keep it out of my mind	0	1	2	3	4
inking about how much it hurts	0	1	2	3	4
inking about how badly I want the pain to	0	1	2	3	4
nothing I can do to reduce the intensity of	0	1	2	3	4
r 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.*"

E: Pain Catastrophizing Scale © 2009 Dr. Michael JL Sullivan
esearch Trust, Lyon, France. Internet: https://eprovide.mapi-trust.org

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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

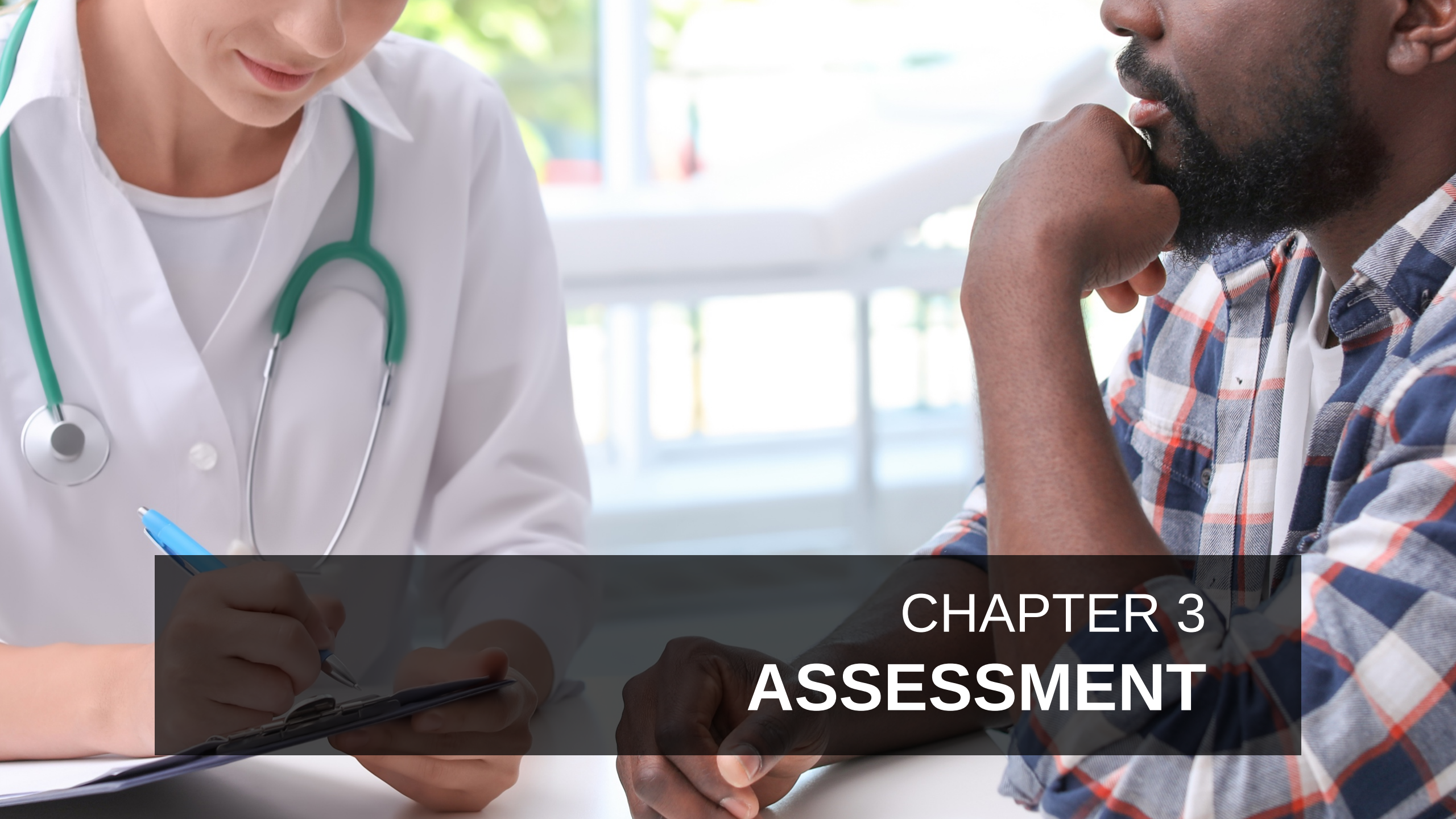
Commonly Used Term	Preferred Term
Addiction	Substance use disorder (SUD) [from the *DSM-5*®]
Drug-seeking, aberrant/problematic behavior	Using medication not as prescribed
Addict	Person with substance use disorder (SUD)
Clean/dirty urine	Positive/negative urine drug screen

SOURCES: SAMHSA 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

WORDS MATTER: DEFINITIONS

Misuse	Use of a medication in a way other than the way it is prescribed
Abuse	Use of a substance with the intent of getting high
Tolerance	Increased dosage needed to produce a specific effect
Dependence	State in which an organism only functions normally in the presence of a substance
Diversion	Transfer of a legally controlled substance, prescribed to one person, to another person for illicit (forbidden by law) use
Withdrawal	Occurrence of uncomfortable symptoms or physiological changes caused by an abrupt discontinuation or dosage decrease of a pharmacologic agent
MME	Morphine milligram equivalents; a standard opioid dose value based on morphine and its potency; allows for ease of comparison and risk evaluations
Chronic non-cancer pain (CNCP)	Any painful condition that persists for ≥ 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



CHAPTER 3
ASSESSMENT

HOW IS PAIN RESOLVED?

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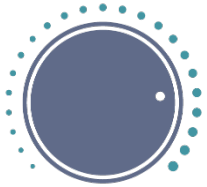
PAIN ASSESSMENT

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.

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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

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PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs)

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

PDMP DATABASES	BENEFITS
• Provide a full accounting of the controlled substance prescriptions filled by a patient • Nearly all are available online 24/7 • Required in most states; know your state laws	• Identify potential drug misuse/abuse • Discover existing prescriptions not reported • Opportunity to discuss with patient • Determine if patient is using multiple prescribers/pharmacies • Identify drugs that increase overdose risk when taken together (such as benzodiazepines and opioids)

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

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OBTAIN A COMPLETE SOCIAL AND PSYCHOLOGICAL HISTORY

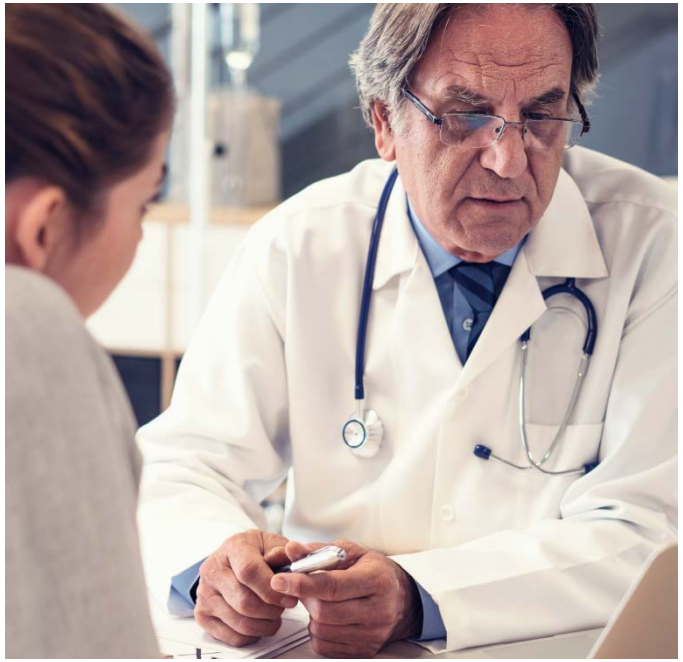
SOCIAL HISTORY

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



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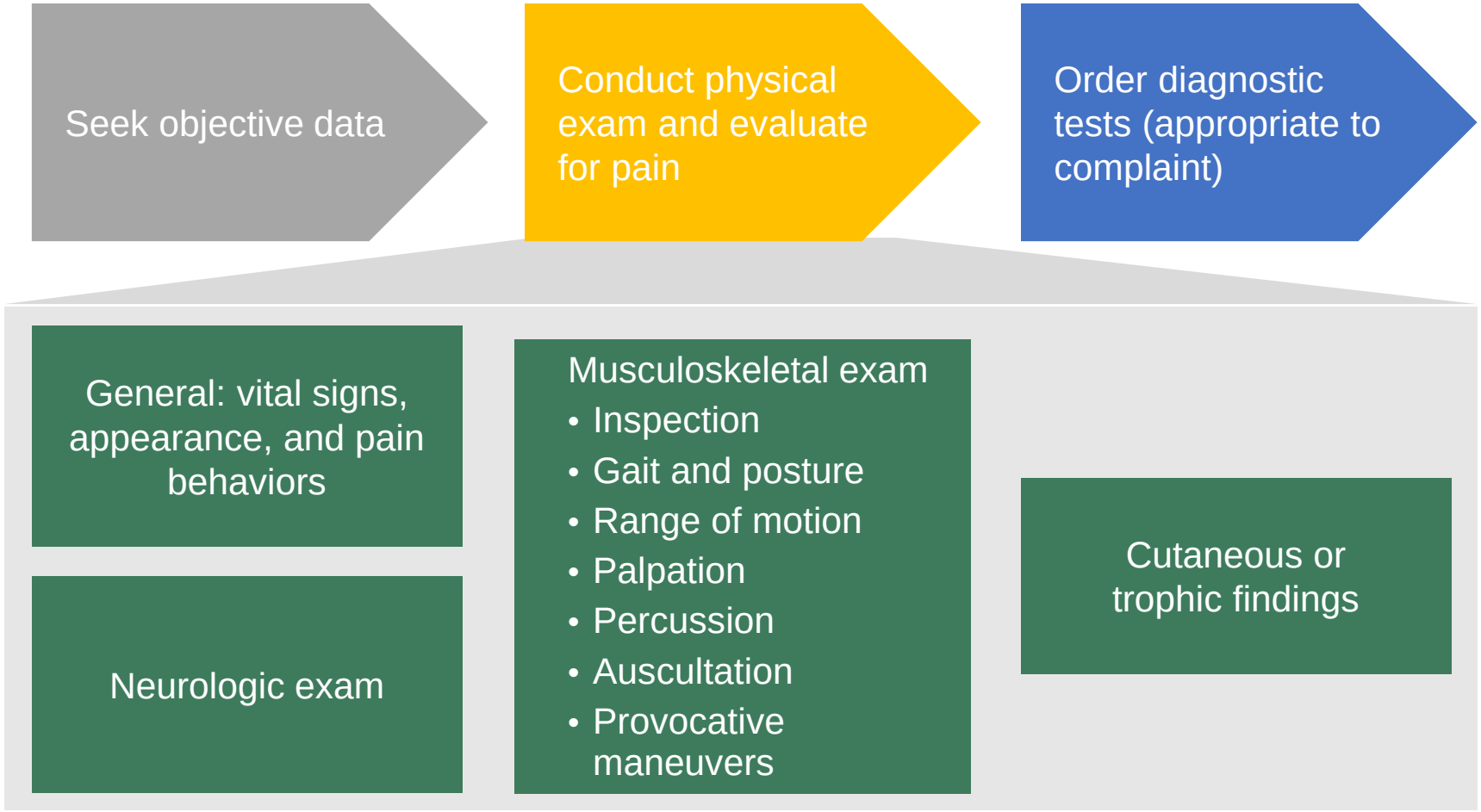
PHYSICAL EXAM AND ASSESSMENT



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-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

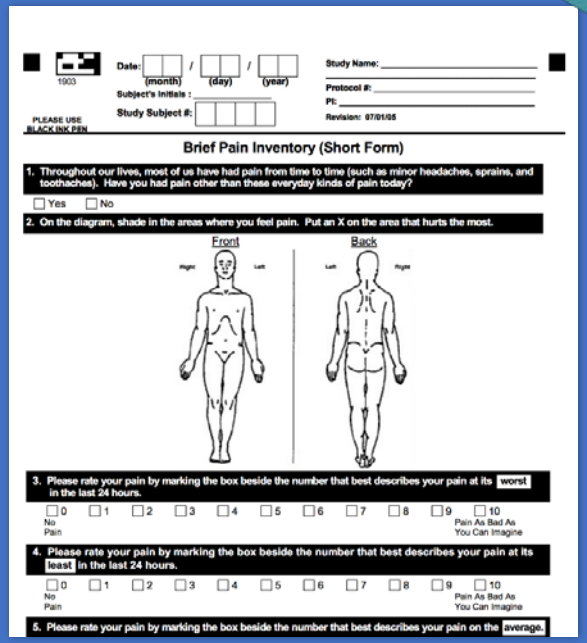
PEG

Adverse Childhood Experience Questionnaire

ACE

Assessment in Advanced Dementia

PAINAD



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
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.

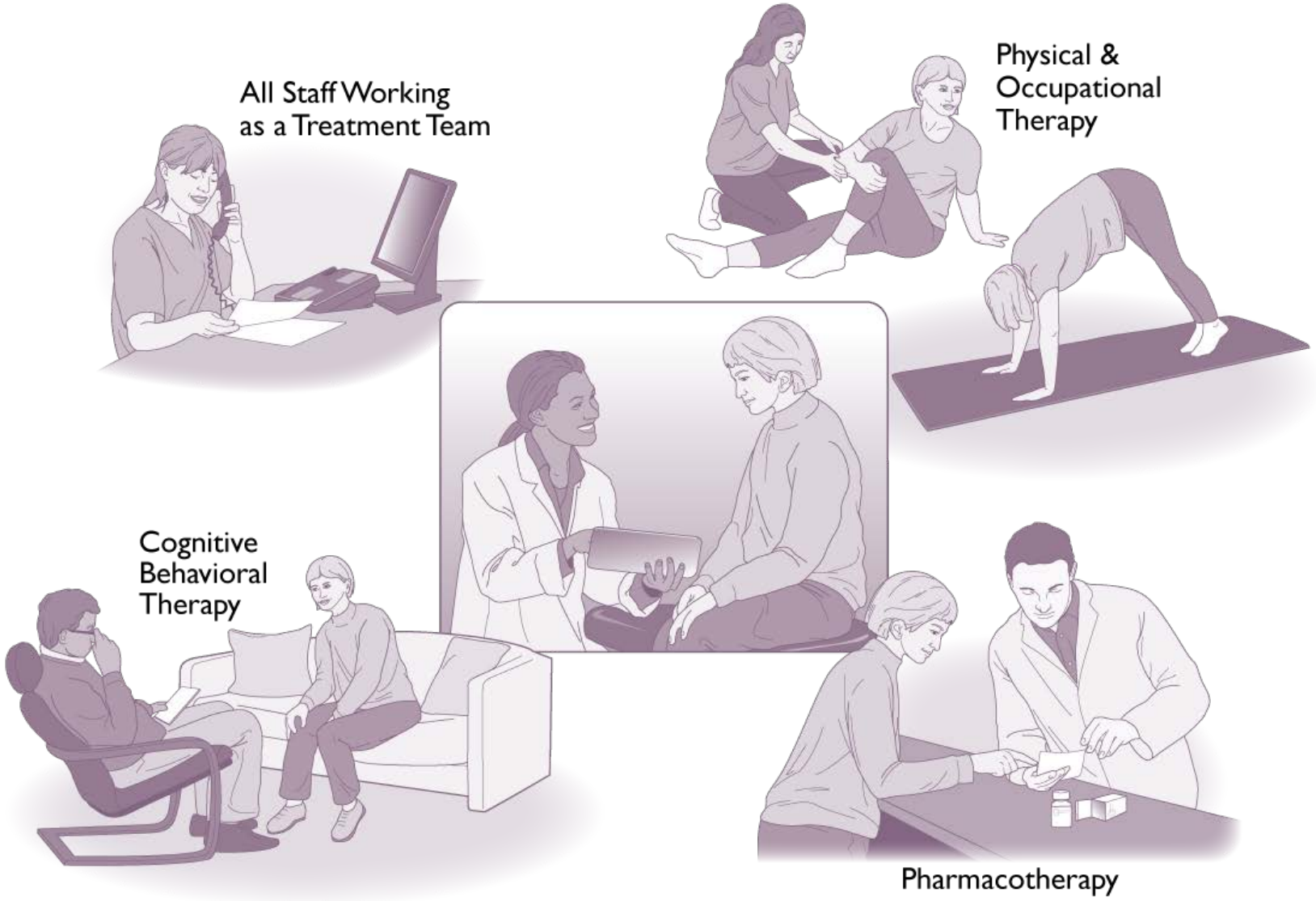
Brief Pain Inventory (BPI)

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

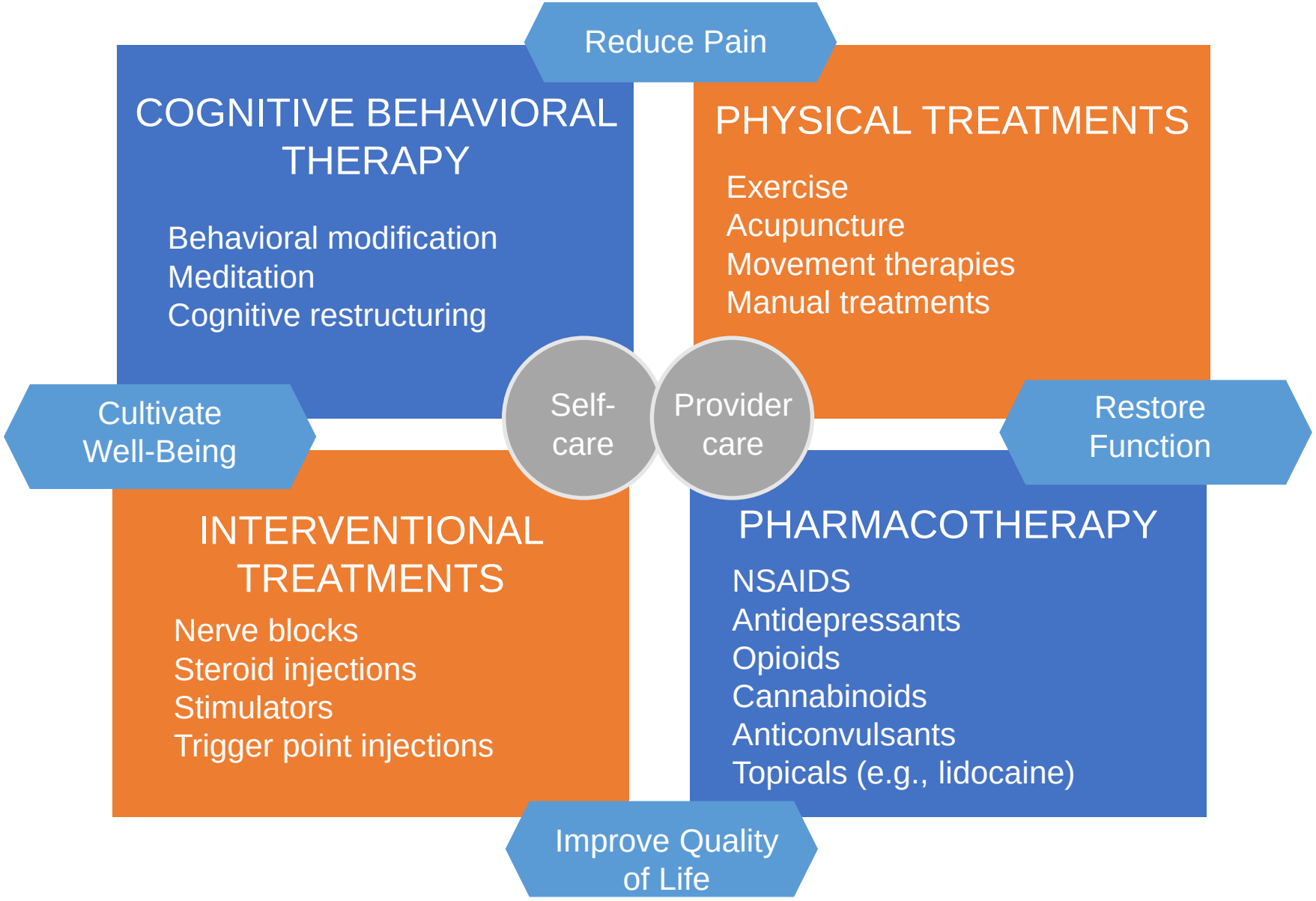
CHAPTER 4

CREATING THE PAIN TREATMENT PLAN

COMPONENTS OF A MULTIMODAL TREATMENT PLAN FOR PAIN



PAIN MANAGEMENT GOALS AND TREATMENT OPTIONS: A MULTIMODAL APPROACH



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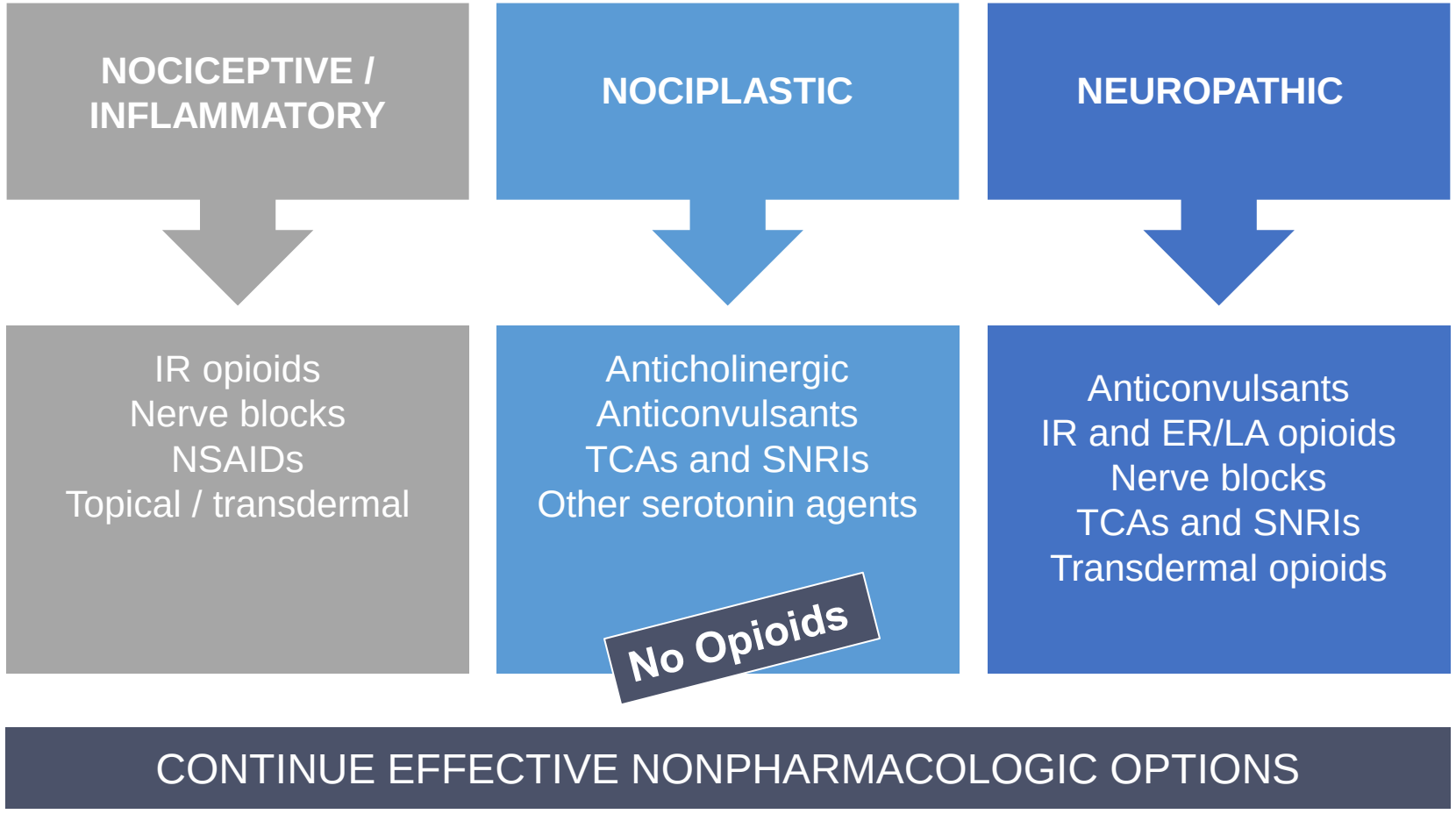
EVIDENCE-BASED NONPHARMACOLOGIC TREATMENTS

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



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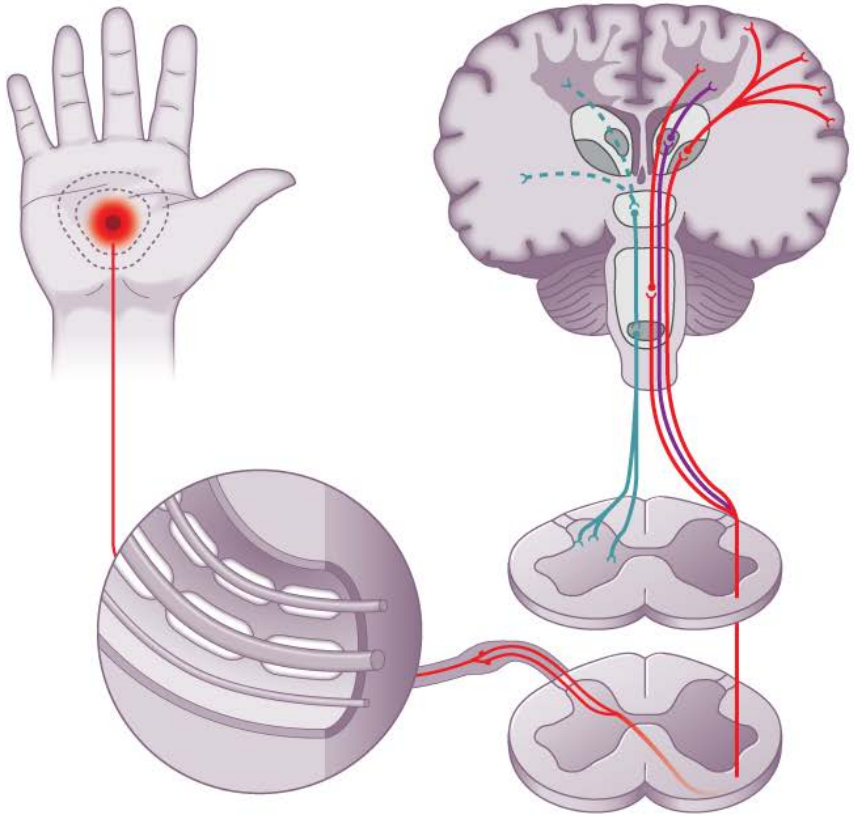
POTENTIAL SITES OF ACTION FOR ANALGESIC AGENTS

Peripherally Mediated Pain:

- Acetaminophen
- NSAIDs
- Opioids
- Topical anesthetics



Centrally Mediated Pain:

- Alpha-2 agonists
- Anticonvulsants
- Ca^{+} 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

Route of administration	Formulation	Strength	Dosing interval
Key instructions (indications, uses, contraindications)	Specific drug interactions	MOA*	Product-specific safety concerns
Specific information about product conversions, if available		Use in opioid-tolerant patients	Relative potency to morphine

*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-rems.org/opioid-education/tools/

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
RAFFT Relax, Alone, Friends, Family, Trouble
DAST Drug Abuse Screening Test
CTQ Childhood Trauma Questionnaire
ACEs Adverse Childhood Experiences

CLOSER LOOK AT THE ORT-OUD

Opioid Risk Tool – OUD (ORT-OUD)

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 >/= 3 indicates high risk for opioid use disorder.

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		

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**

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

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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

*Greatest risk of respiratory depression

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

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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

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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

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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

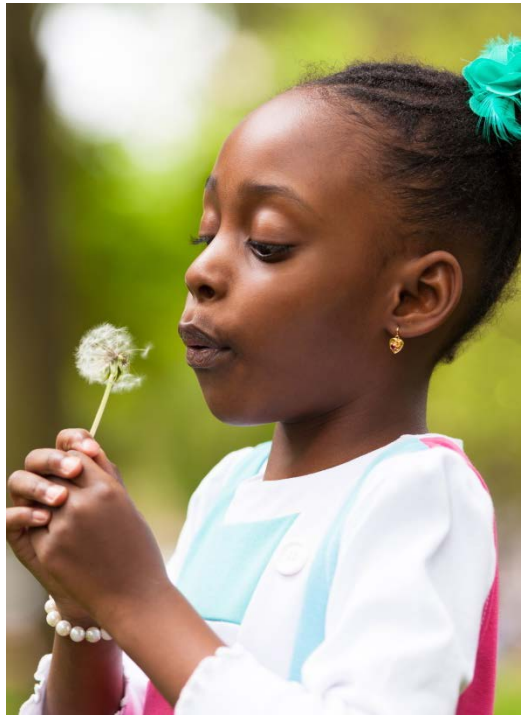
SOURCES: Chou R, et al. J Pain. 2009;10:113-30; ACOG Committee on Obstetric Practice, August 2017

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 ≥ 2
- Oxycodone ER dosing changes for children ≥ 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

68 y/o male with long standing Osteoarthritis and multiple joint pains

- Interferes with sleep, ability to golf
- On scheduled Acetaminophen, Lidoderm patch, Intolerant to NSAIDS
- PMH- HTN, Diabetes

74 y/o female with metastatic ovarian cancer

- New LLE pain
- On Acetaminophen for back pain
- Intolerant to NSAIDS

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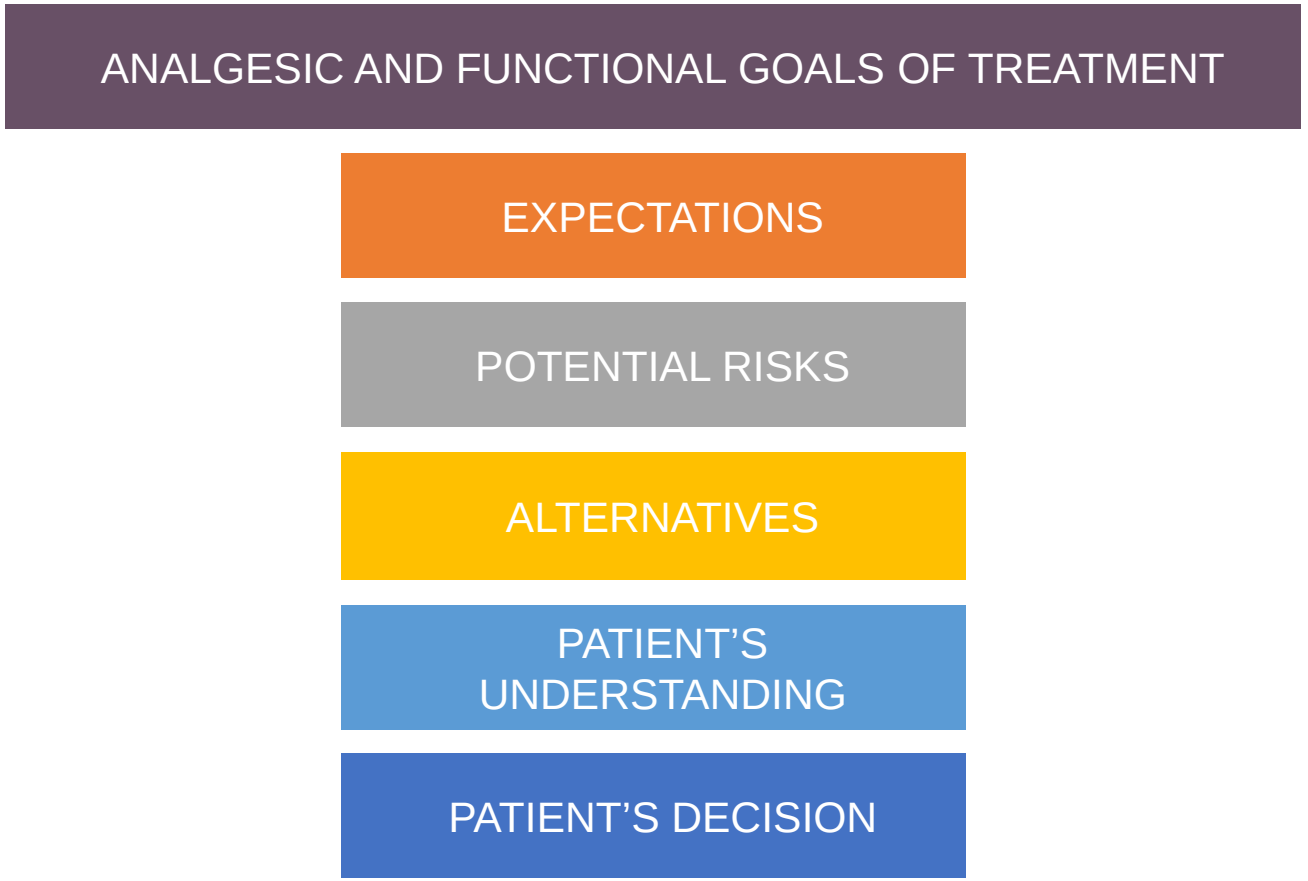
INFORMED CONSENT

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



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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	Multiple dose escalations or other noncompliance with therapy despite warnings
Unapproved use of the drug to treat another symptom	Prescription forgery
Openly acquiring similar drugs from other medical sources	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 ≥ 50 morphine milligram equivalents (MME)/day
  - Carefully justify a decision to titrate dosage to ≥ 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?

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MONITORING PAIN AND SUBSTANCE USE DISORDER

PAIN – 5 A's	SUD – 5 C's
• **A**nalgesia • **A**ctivity/Function • **A**berrant/Problematic behavior, not present • **A**dverse events • **A**ffect	• **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

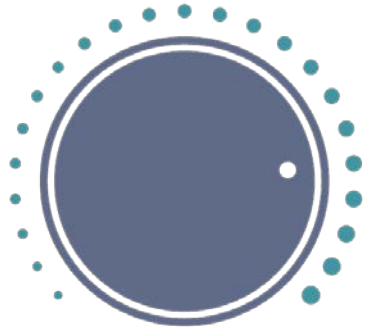
- Especially within 24 – 72 hours of initiating therapy and increasing dosage

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/rems/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, 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
- 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

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/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

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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

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START WITH AN EDT FOR ADULTS

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)

MU-OPIOID RECEPTORS AND INCOMPLETE CROSS TOLERANCE

MU-OPIOIDS BIND TO MU RECEPTORS

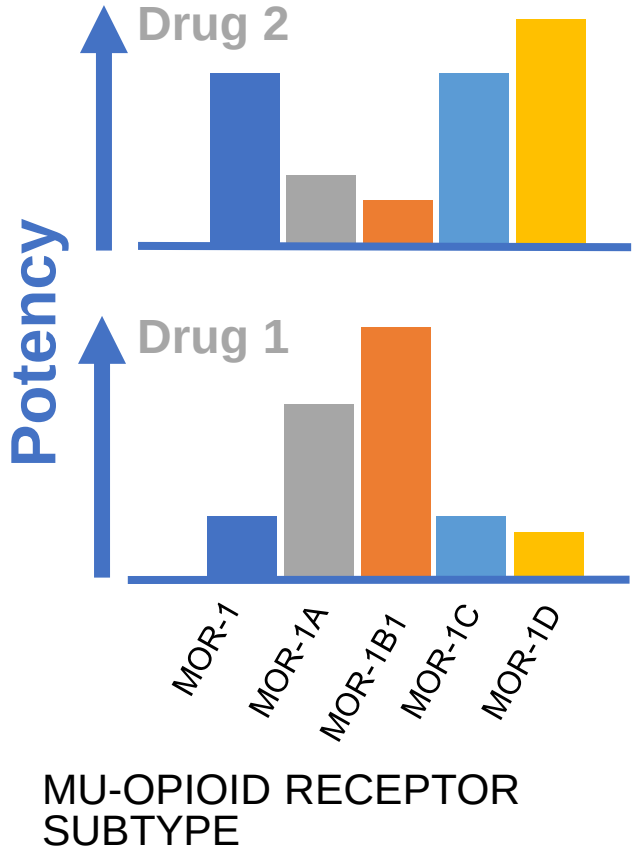
MANY MU RECEPTOR SUBTYPES

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



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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	CLOSER TO 25% REDUCTION IF PATIENT
• Is receiving a relatively high dose of current opioid regimen • Is elderly or medically frail	• Does not have these characteristics • Is changing route of administration

*75% – 90% reduction for methadone

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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

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GUIDELINES FOR OPIOID ROTATION: SUMMARY

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

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

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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

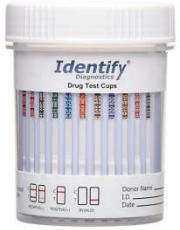
URINE DRUG TESTING (UDT)

- 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)
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

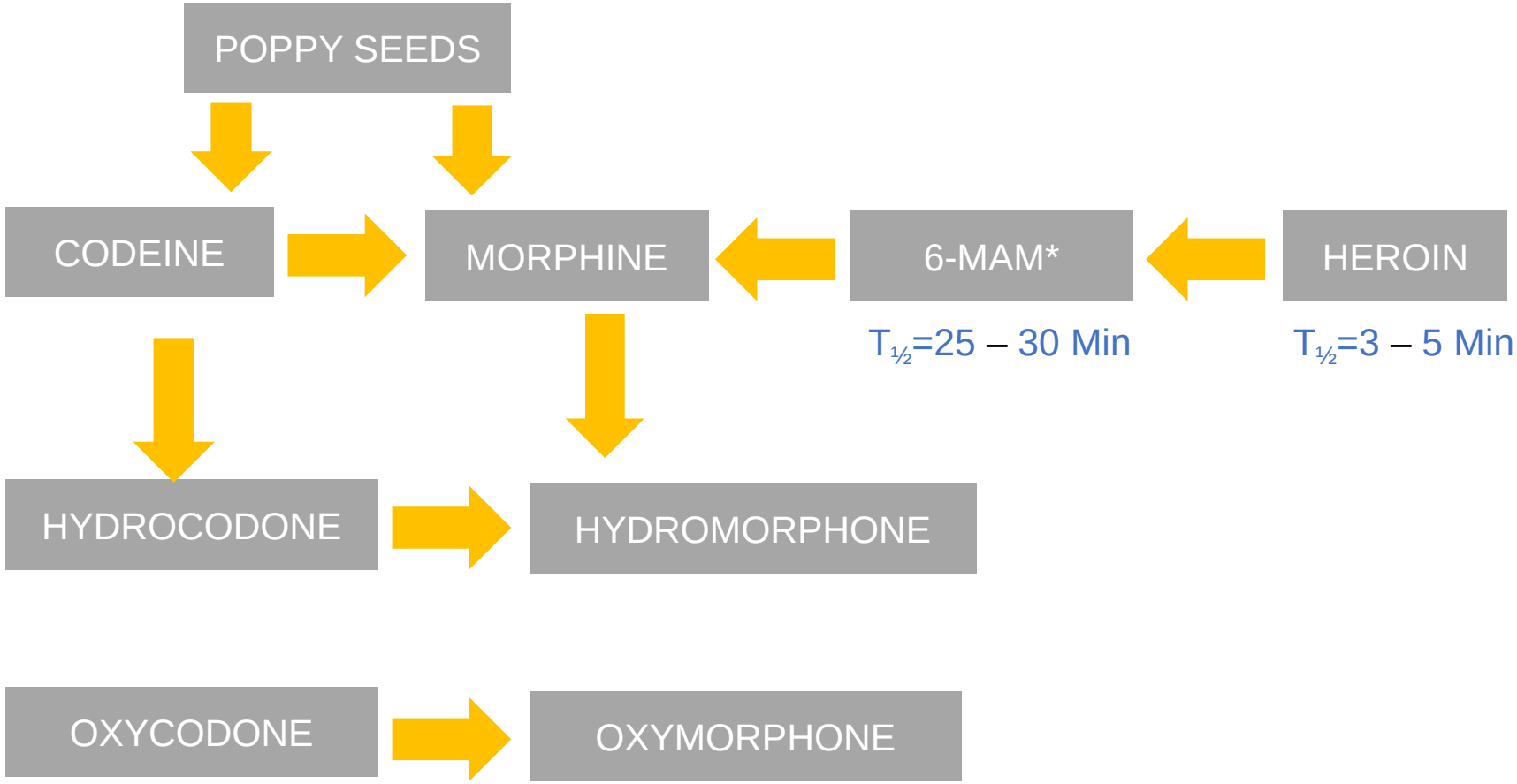
GC-MS = gas chromatograph-mass spectrometry; HPLC = high-performance liquid chromatography

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/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

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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

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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

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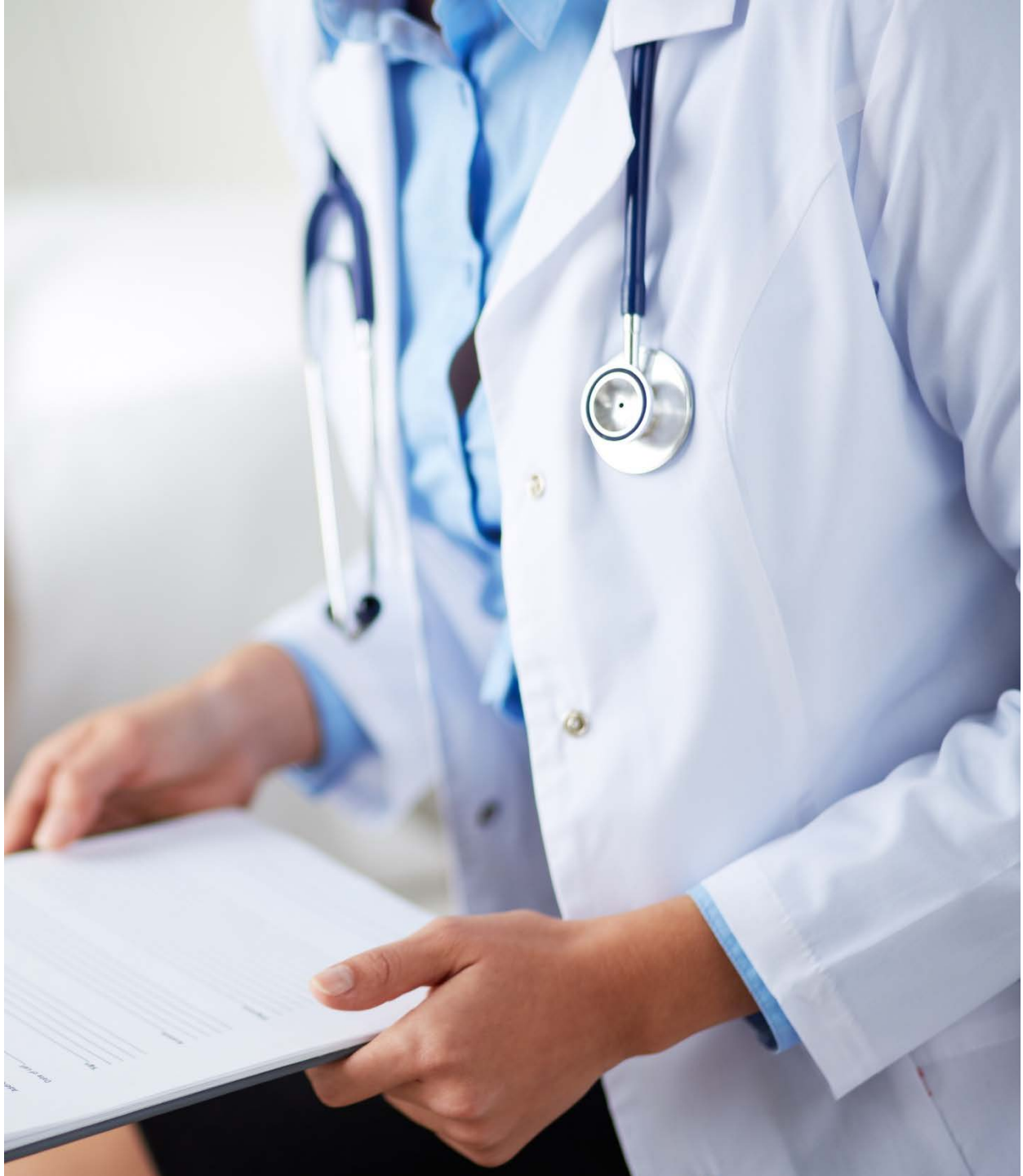
TAPER DOSE WHEN DISCONTINUING

- 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.

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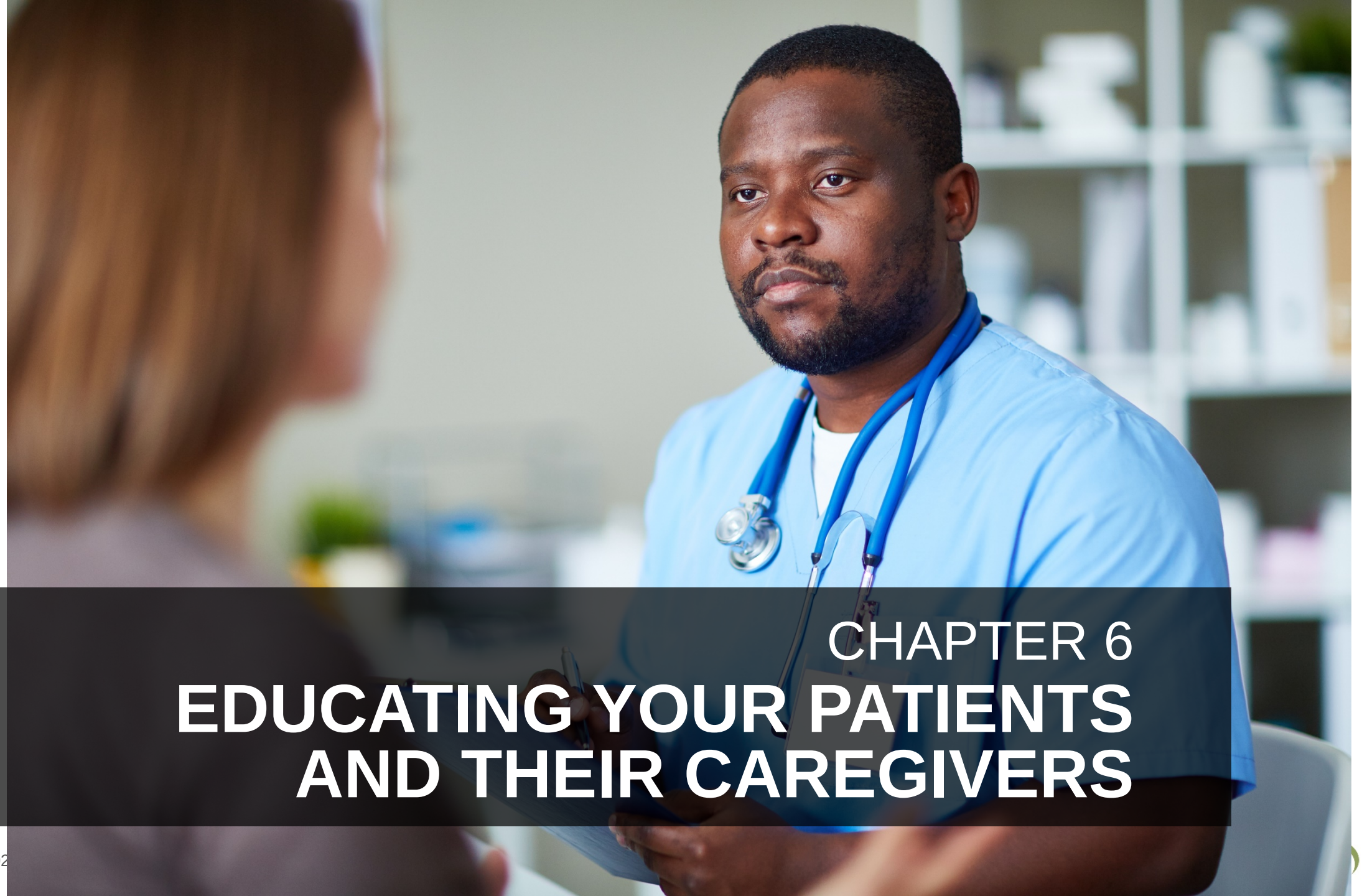

CHAPTER 6

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

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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

https://www.accessdata.fda.gov/drugsatfda_docs/rems/Opioid_Analgesic_2018_09_18_Patient_Counseling_Guide.pdf

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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

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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

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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

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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

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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

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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

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WHERE AND HOW TO DISPOSE OF UNUSED OPIOIDS

Authorized Collection Sites

- Use the DEA disposal locator website to find sites near you: https://apps.deadiversion.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)

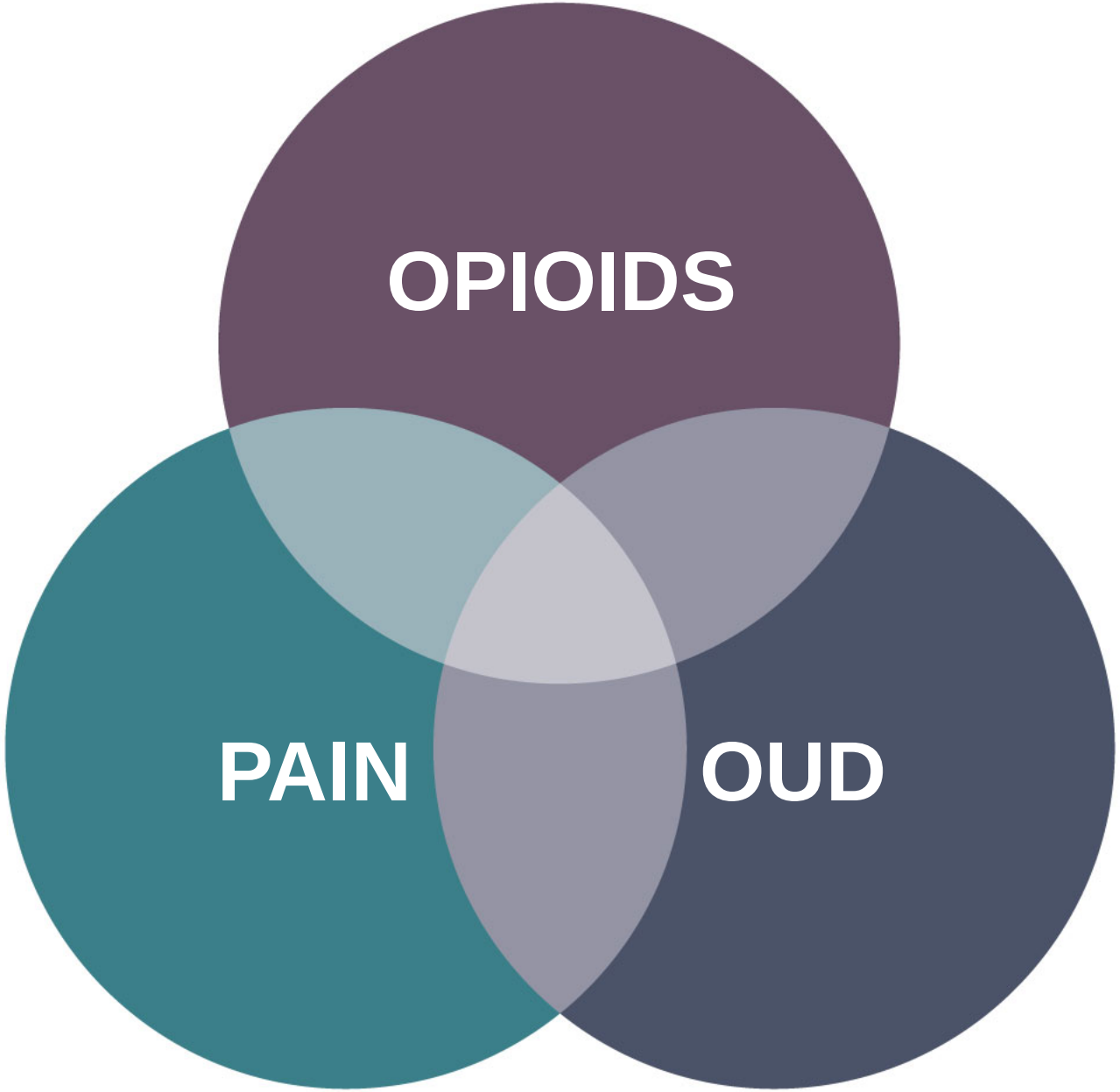
Mail-Back Packages

- Obtain from authorized collectors

SOURCES. Department of Justice, Diversion Control Division, Disposal Act: General Public Fact Sheet (June 2018), https://www.deadiversion.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)



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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

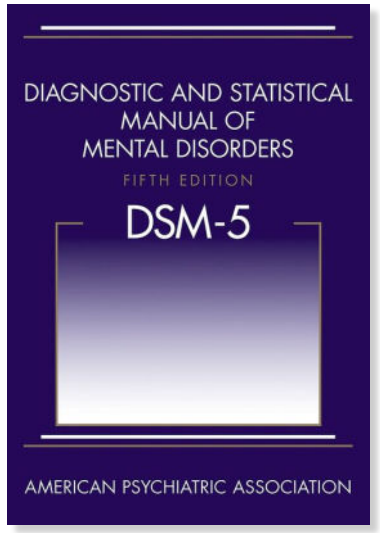
1. Tolerance *
2. Withdrawal *

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
- ≥6 = severe

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

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SOURCE: APA. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). 2013

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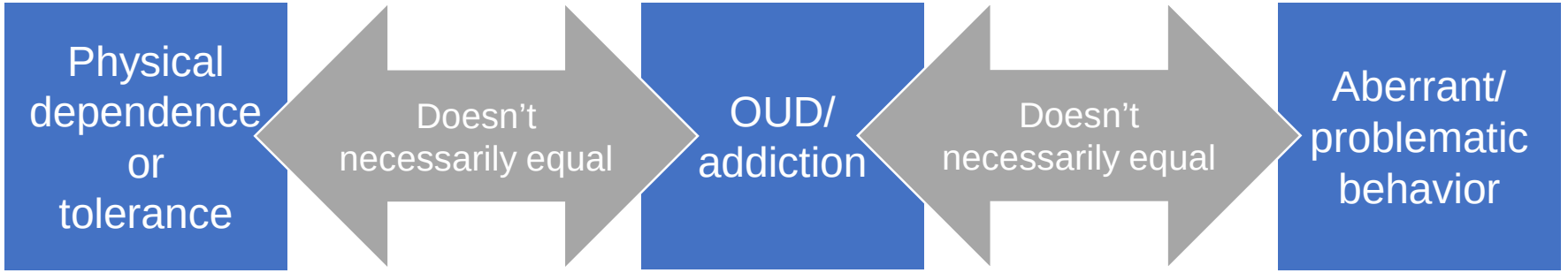
PAIN, OUD, AND OPIOIDS

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



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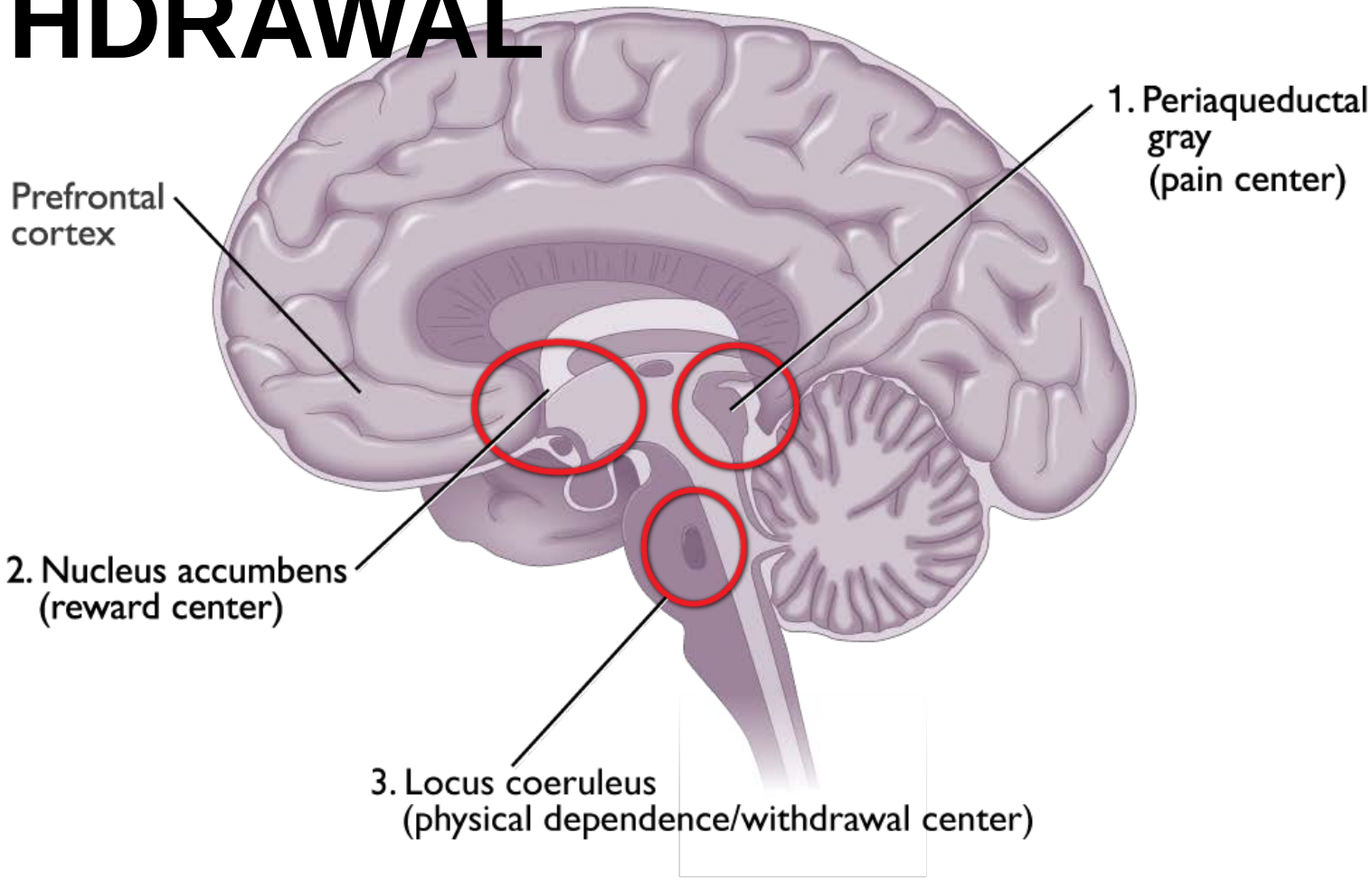
OPIOID RECEPTORS IN THE BRAIN: RELATIONSHIP TO ANALGESIA, OUD, AND WITHDRAWAL



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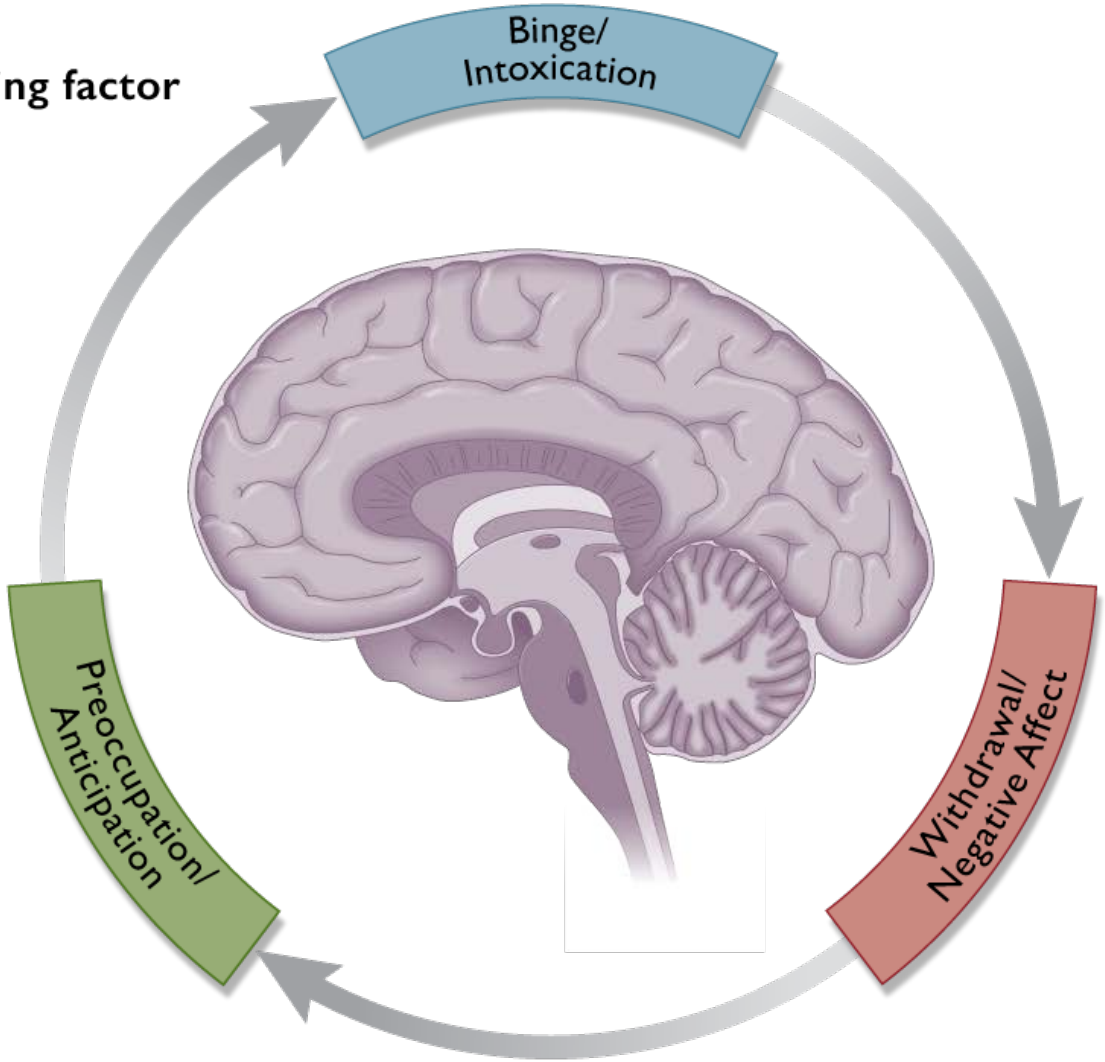
THE CYCLE OF SUBSTANCE USE DISORDER

NEUROTRANSMITTERS

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



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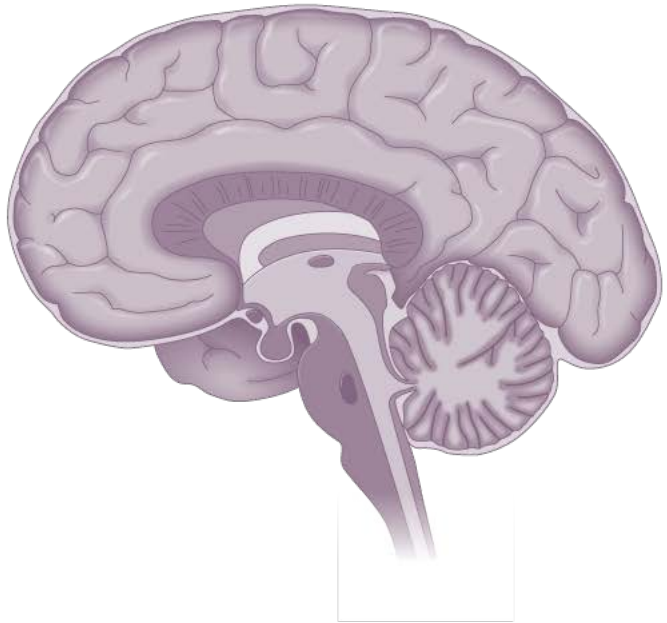
EVERYONE IS VULNERABLE, BUT WHO IS *MOST* VULNERABLE TO OPIOID MISUSE OR OUD?

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

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

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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.

Pain Management and Opioids:
Balancing Risks and Benefits

State Specific Information

Oklahoma

https://www.ok.gov/health/

Updated: April 2019

The CO*RE State Information Hub is updated three times per year. Since opioid prescribing policies, laws, and regulations change rapidly, please check your state's regulations for the most up-to-date information.

Collaborative for REMS Education

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Content Outline

- Opioid Prescribing Rates and Overdose Deaths
- Prescription Drug Monitoring Program (PDMP)
- Prescribing Limits, Status and Education Requirements
- Naloxone Regulation
- Medical and Recreational Marijuana Status

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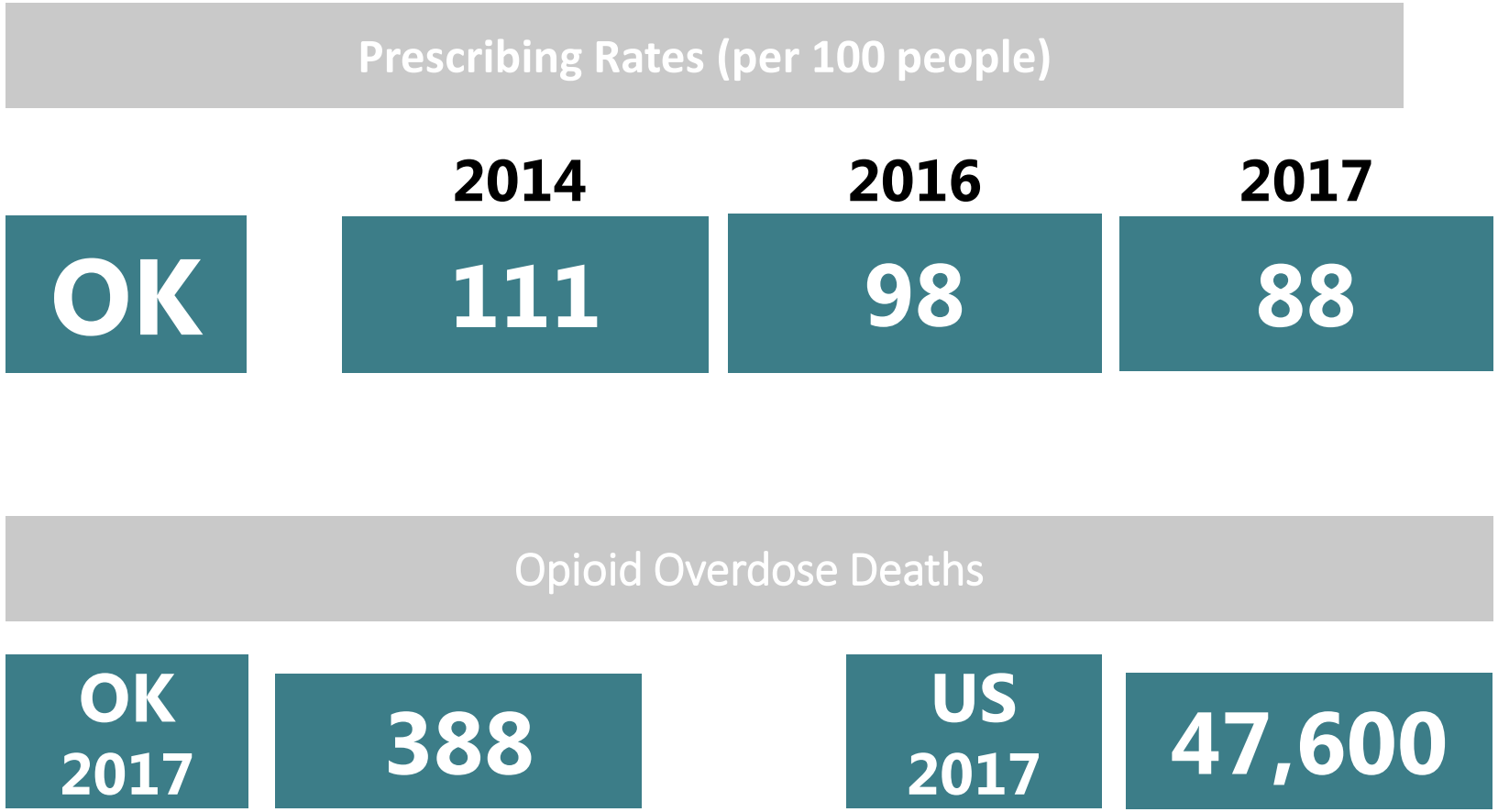
Opioid Prescribing Rates & Overdose Deaths



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

PDMP: Prescription Drug Monitoring Program

General	• **Oklahoma Prescription Monitoring Program** http://pmp.obn.ok.gov/ • Administered by the **Bureau of Narcotics and Dangerous Drugs Control** • **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 **at point of sale** • Unsolicited reports/alerts **are sent** to prescribers, dispensers, law enforcement, licensing boards • Oklahoma **does share** data with other states' PDMP • Out-of-state pharmacies **are required** to report to the patient's home state • Patient **will not be notified** if their record has been accessed

https://namsdl.org/doc-library/?fwp_document_type=map Jan. 2019
http://www.pdmpassist.org/content/pdmp-maps-and-tables Aug. 2018

Prescribing Limits, Status & Education Requirements

Initial prescribing limits for acute pain: 7 day supply

	Physician	Physician Assistant	Advanced Practice Nurse
Prescriber Status	Licensed	Schedule III-V	Schedule III-V
Education Requirements	1 hr. annually	1 hr. annually	2 hrs. annually

http://www.fsmb.org/siteassets/advocacy/key-issues/continuing-medical-education-by-state.pdf April 2019
https://ballotpedia.org/Opioid_prescription_limits_and_policies_by_state Feb. 2019
www.netce.com/ce-requirements/

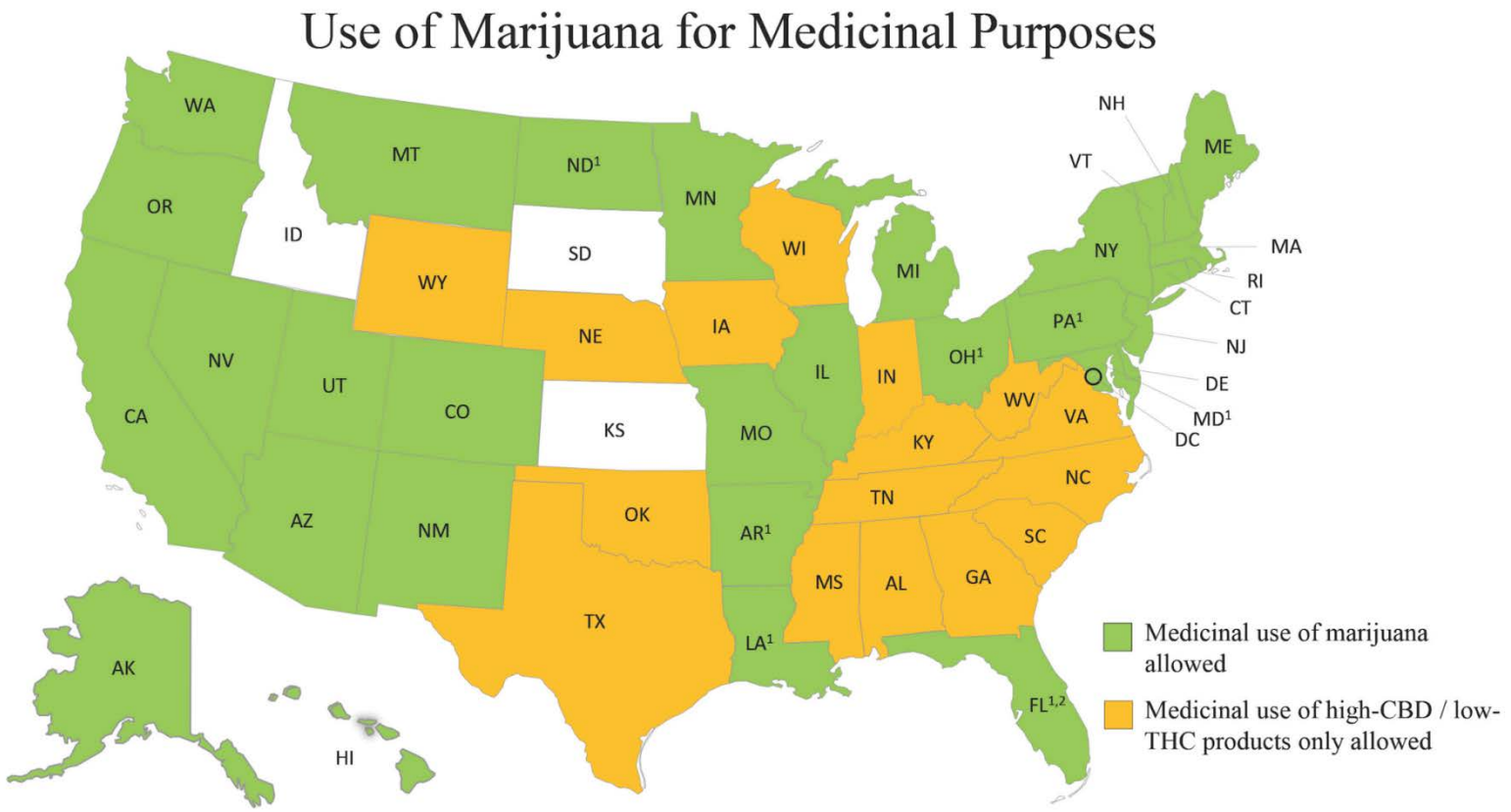
Naloxone Regulation

Effective date	• **November 2018**
Criminal Immunity	• Prescribers: **No** • Dispensers: **No** • Lay People: **No**
Also Available	• Without Prescription: **Yes** • To 3rd Party: **Yes** • By Standing Order: **Yes**
Carried by First Responders	• **Yes**

https://www.networkforphl.org/_asset/qz5pvn/legal-interventions-to-reduce-overdose.pdf Dec. 2018
www.pdaps.org

Marijuana Status

Medical



Recreational	**Not legal for recreational use in Oklahoma**

© 2017 The National Alliance for Model State Drug Laws (NAMSDL)

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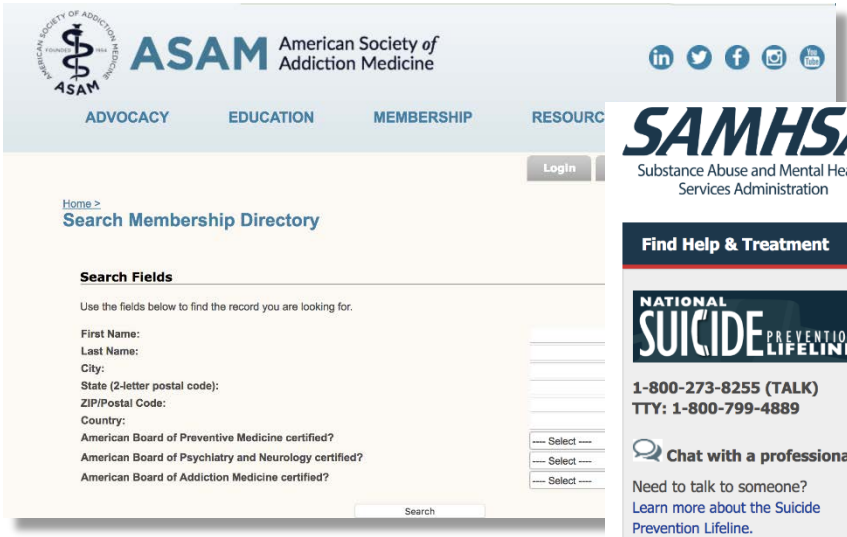
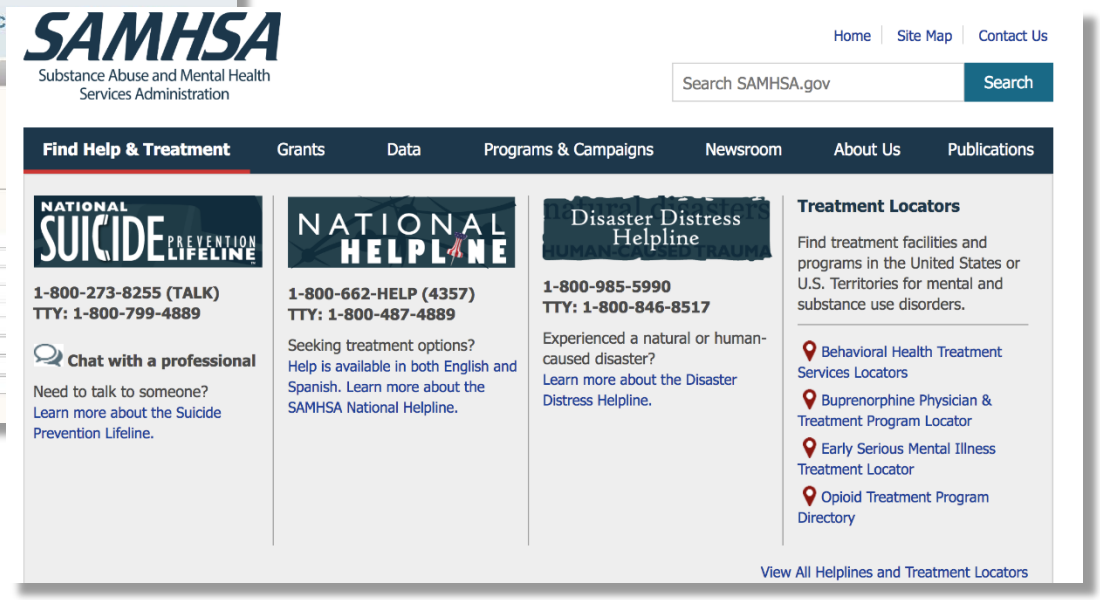
REFERRALS AND TREATMENT CENTERS

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

ASAM resources: https://www.asam.org/resources/resource-links
SAMHSA locator: https://findtreatment.samhsa.gov/locator
AAAP locator: https://www.aaap.org/patients/find-a-specialist/





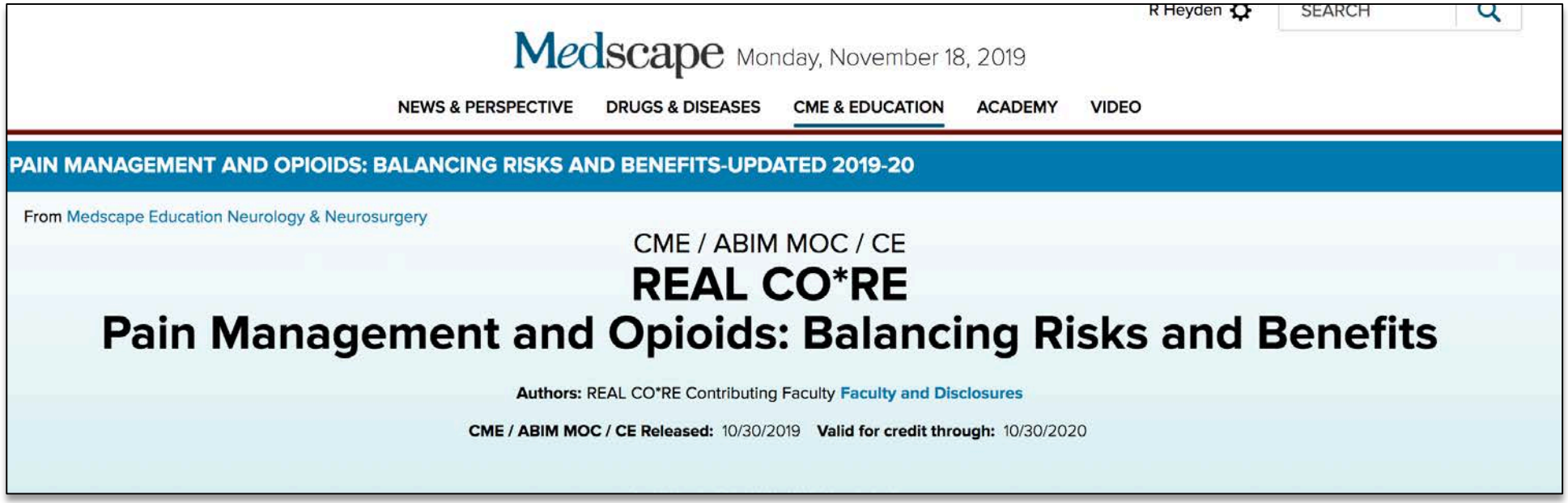
Our session stops here, but your review continues…

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

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

CO*RE's ONLINE ADAPTIVE LEARNING COURSE

https://www.medscape.org/viewarticle/919844?src=acdmpart_rpc_919844



THANK YOU!

WWW.CORE-REMS.ORG

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