Pain Management and Opioids:
Balancing Risks and Benefits

PRESENTED BY
CO*RE, THE COLLABORATION FOR REMS EDUCATION

UPDATED 2019
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DISCLOSURE:
Dr. Moberg and all staff involved in the development of content declare that neither they nor members of their immediate families have had financial relationships with the manufacturers of goods or services discussed, or corporate supporters of this event.
ACKNOWLEDGMENTS

Presented by the California Academy of Family Physicians, a member of the Collaborative for Risk Evaluation and Mitigation Strategy (REMS) Education (CO*RE), nine interdisciplinary organizations working together to improve pain management and prevent adverse outcomes.

This activity is supported by an independent educational grant from the Opioid Analgesic REMS Program Companies (RPC). Please see this document for a list of REMS Program Companies. This activity is intended to be fully compliant with the Opioid Analgesic REMS education requirements issued by the U.S. Food and Drug Administration.
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NO CO*RE FACULTY HAS ANY RELEVANT FINANCIAL RELATIONSHIPS
BY THE END OF THIS SESSION, 
YOU WILL BE ABLE TO:

1. Describe the *pathophysiology of pain* as it relates to the concepts of pain management.
2. Accurately assess patients in pain.
3. Develop a safe and effective pain *treatment plan*.
5. Identify the risks and benefits of *opioid therapy*.
7. Recognize behaviors that may be associated with *opioid use disorder*. 
WHY ARE WE HERE?
A TRIPHASIC EPIDEMIC

Prescription
Opioids

Heroin

Fentanyl
PRESCRIBING PATTERNS AND OPIOID-RELATED DEATHS

SOURCE: CDC, Prescription Opioid Data
# OPIOID PRESCRIBING RATES & OVERDOSE DEATHS

## Prescribing Rates (per 100 people)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TX</strong></td>
<td>67</td>
<td>58</td>
<td>53</td>
</tr>
</tbody>
</table>

## Opioid Overdose Deaths

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TX</strong></td>
<td>1458</td>
<td><strong>US</strong></td>
<td>47,600</td>
</tr>
</tbody>
</table>

https://www.cdc.gov/drugoverdose
https://www.kff.org/state-category/health-status/opioids/
### Prescribing Status & Education Requirements

**Initial prescribing limits for acute pain:** None

<table>
<thead>
<tr>
<th>Prescriber Status</th>
<th>Physician</th>
<th>Physician Assistant</th>
<th>Advanced Practice Nurse</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prescription Status</strong></td>
<td>Licensed</td>
<td>Schedule III-V*</td>
<td>Schedule III-V*</td>
</tr>
<tr>
<td><strong>Education Requirements</strong></td>
<td>None</td>
<td>None</td>
<td>3 hrs./2 yrs.</td>
</tr>
</tbody>
</table>

*Schedule II under very limited conditions

[https://ballotpedia.org/Opioid_prescription_limits_and_policies_by_state](https://ballotpedia.org/Opioid_prescription_limits_and_policies_by_state) Feb 2019
[www.netce.com/ce-requirements/](http://www.netce.com/ce-requirements/)
# OPIOID ANALGESICS ARE SCHEDULE II SUBSTANCES

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

Complete list of products covered under the Opioid Analgesic REMS available at: [https://opioidanalgesicrems.com/RpcUI/products.u](https://opioidanalgesicrems.com/RpcUI/products.u)
Heroin

FENTANYL AND FENTANYL ANALOGUES

Fentanyl Induced Chest Wall Rigidity
RISKS VERSUS BENEFITS

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 IRs)
- Continuous, predictable (with ER/LAs)
- Improved function
- Improved quality of life

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 is in alignment with the FDA Opioid Analgesics REMS Education Blueprint.

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.
THE NEUROMECHANISMS OF PAIN

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

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

1. Injury
2. Transmission along mixed fiber neurons (modulation occurs)
3. Transmission along spine up to brain (modulation occurs)
4. Perception in the brain (modulation occurs)
5. Descending pathway (down regulation)
Feeling physical pain is vital for survival. People who lose the ability to feel pain, have shorter life spans.
OPIOID RECEPTOR LOCATIONS
**TYPES OF PAIN**

**NOCICEPTIVE / INFLAMMATORY**
- Pain in response to an injury or stimuli; *typically acute*
- Postoperative pain, sports injuries, arthritis, sickle cell disease, mechanical low back pain

**NOCIPLASTIC**
- Pain that arises from altered nociceptive function; *typically chronic*
- Fibromyalgia, irritable bowel syndrome, CRPS, non-specific low back pain

**NEUROPATHIC**
- Pain that develops when the nervous system is damaged; *typically chronic*
- Post-herpetic neuralgia, trigeminal neuralgia, distal polyneuropathy, neuropathic low back pain

**MIXED TYPES (NOCICEPTIVE / NEUROPATHIC)**
- Primary injury and secondary effects

Possible development of chronic pain after an acute injury.
PAIN CATASTROPHIZING

- **“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.”**

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

SOURCE: Pain Catastrophizing Scale © 2009 Dr. Michael JL Sullivan
## WORDS MATTER: DEFINITIONS

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

**SOURCES:**
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

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
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
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

Childhood Trauma Questionnaire
- ACE

Assessment in Advanced Dementia
- PAINAD

Psychological Measurement Tools (PHQ-9, GAD-7, etc.)
**OPIOID MISUSE RISK ASSESSMENT TOOLS**

http://core-rem.s.org/opioid-education/tools/

<table>
<thead>
<tr>
<th>TOOLS FOR PATIENTS CONSIDERED FOR OPIOID THERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORT-OU</strong></td>
</tr>
<tr>
<td><strong>SOAPP®</strong></td>
</tr>
<tr>
<td><strong>DIRE</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOOLS FOR SUBSTANCE USE DISORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAGE-AID</strong> Cut down, Annoyed, Guilty, Eye-Opener tool, Adapted to Include Drugs</td>
</tr>
<tr>
<td><strong>RAFFT</strong> Relax, Alone, Friends, Family, Trouble</td>
</tr>
<tr>
<td><strong>DAST</strong> Drug Abuse Screening Test</td>
</tr>
<tr>
<td><strong>CTQ</strong> Childhood Trauma Questionnaire</td>
</tr>
<tr>
<td><strong>ACEs</strong> Adverse Childhood Experiences</td>
</tr>
</tbody>
</table>

*Also for patients with chronic pain:*
- Get a baseline UDT
- Check the PDMP
A CLOSER LOOK AT THE ORT-OUD

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

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

Scoring:
- \( \leq 2 \): low risk
- \( \geq 3 \): high risk

PHYSICAL EXAM AND ASSESSMENT

Seek objective data

Conduct physical exam and evaluate for pain

Order diagnostic tests (appropriate to complaint)

General: vital signs, appearance, and pain behaviors

Musculoskeletal exam
- Inspection
- Gait and posture
- Range of motion
- Palpation
- Percussion
- Auscultation
- Provocative maneuvers

Cutaneous or trophic findings

**PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs)**

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

<table>
<thead>
<tr>
<th>PDMP DATABASES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide a full accounting of the controlled substance prescriptions filled by a patient</td>
<td>• Identify potential drug misuse/abuse</td>
</tr>
<tr>
<td>• Nearly all are available online 24/7</td>
<td>• Discover existing prescriptions not reported by patient</td>
</tr>
<tr>
<td>• Required in most states; know your state laws</td>
<td>• Opportunity to discuss with patient</td>
</tr>
<tr>
<td></td>
<td>• Determine if patient is using multiple prescribers/pharmacies</td>
</tr>
<tr>
<td></td>
<td>• Identify drugs that increase overdose risk when taken together</td>
</tr>
</tbody>
</table>
PDMP: Prescription Drug Monitoring Program

**General**
- **Texas Prescription Monitoring Program**
  https://www.pharmacy.texas.gov/PMP/
- Administered by the **Board of Pharmacy**
- **Schedule II-V** are monitored
- **Dispensers and prescribers are required** to register and input data
- Before prescribing, there is **no obligation** to review under certain circumstances (will be required effective 9/1/2019)
- Prescribers can authorize a registered delegate

**Reporting**
- Must be entered into PDMP by **next business day** after dispensing
- Unsolicited reports/alerts are sent to prescribers and dispensers only
- Texas **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

http://www.pdmpassist.org/content/pdmp-maps-and-tables Aug. 2018
**SUMMARY OF THE 2016 CDC GUIDELINES**

- Non-pharmacologic and non-opioid treatments preferred.
- Establish treatment goals
- Immediate release first
- Lowest dose preferable; caution when exceeding 50 Morphine Milligram Equivalents
- Avoid exceeding 90 MME
- For acute pain only prescribe what is expected
- Evaluate response to opioids one 1-4 weeks after initiation for chronic pain
- If benefits do not outweigh harms taper and discontinue

Mitigate Risk

PAIN MANAGEMENT GOALS AND TREATMENT OPTIONS: A MULTIMODAL APPROACH

COGNITIVE BEHAVIORAL THERAPY
- Behavioral modification
- Meditation
- Cognitive restructuring

INTERVENTIONAL TREATMENTS
- Nerve blocks
- Steroid injections
- Stimulators
- Trigger point injections

PHYSICAL TREATMENTS
- Exercise
- Acupuncture
- Movement therapies
- Manual treatments

PHARMACOTHERAPY
- NSAIDS
- Antidepressants
- Opioids
- Cannabinoids
- Anticonvulsants
- Topicals (e.g., lidocaine)

Reduce Pain
Cultivate Well-Being
Self-care
Provider care
Restore Function
Improve Quality of Life

Reduce Pain
Cultivate Well-Being
Self-care
Provider care
Restore Function
Improve Quality of Life
EVIDENCE-BASED NONPHARMACOLOGIC TREATMENTS

What is appropriate for your patient?

- Tai Chi
- Yoga
- Cognitive Behavioral Therapy
- Acupuncture
- PT/OT/aquatic
- Mindfulness
- Osteopathic Manipulative Therapy
- Massage therapy
- Chiropractic
- Neuromodulation or surgical approaches
PHARMACOLOGIC TREATMENTS BY TYPE OF PAIN

NOCICEPTIVE / INFLAMMATORY
- Antihistamine
- IR opioids
- Nerve blocks
- NSAIDs
- Topical / transdermal

NOCIPLASTIC
- Anticholinergic
- Anticonvulsants
- TCAs and SNRIs
- Other serotonin agents
- No Opioids

NEUROPATHIC
- Anticonvulsants
- IR and ER/LA opioids
- Nerve blocks
- TCAs and SNRIs
- Transdermal opioids

CONTINUE EFFECTIVE NONPHARMACOLOGIC OPTIONS
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 neuropathic or nociceptive pain that is moderate to severe
- Start with an IR opioid

# OPIOID SIDE EFFECTS AND ADVERSE EVENTS

<table>
<thead>
<tr>
<th>SIDE EFFECTS</th>
<th>ADVERSE EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory depression</td>
<td>Falls or fractures</td>
</tr>
<tr>
<td>Opioid-induced constipation</td>
<td>Allergic reactions</td>
</tr>
<tr>
<td>Myoclonus</td>
<td>Hyperalgesia</td>
</tr>
<tr>
<td>Sedation, cognitive impairment</td>
<td>Addiction</td>
</tr>
<tr>
<td>Sweating, miosis, urinary retention</td>
<td>Overdose</td>
</tr>
<tr>
<td>Hypogonadism</td>
<td>Disability</td>
</tr>
<tr>
<td>Tolerance and physiologic dependence</td>
<td>Death</td>
</tr>
</tbody>
</table>

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 HYPERALGESIA
OPIOID-INDUCED RESPIRATORY DEPRESSION

MORE LIKELY TO OCCUR:

• In elderly, cachectic, or debilitated patients
• If given concomitantly with other drugs that depress respiration
• 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
• Instruct patients to swallow tablets/capsules whole
  – Dose from cut, crushed, dissolved, or chewed tablets/capsules may be fatal, particularly in opioid-naïve individuals
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

# DRUG INTERACTIONS COMMON TO OPIOIDS

## Other CNS Depressants
- Concurrent use can increase risk of respiratory depression, hypotension, profound sedation, or coma
- Reduce initial dose of one or both agents

## Skeletal Muscle Relaxants
- Concurrent use may enhance neuromuscular blocking action and increase respiratory depression

## Partial Agonists* or Mixed Agonist/Antagonists †
- Avoid concurrent use with full opioid agonist
- May reduce analgesic effect and/or precipitate withdrawal

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

*Buprenorphine †pentazocine, nalbuphine, butorphanol
FOR SAFER USE: KNOW DRUG INTERACTIONS, PK, AND PD

CNS depressants can potentiate sedation and respiratory depression

Opioid use with MAOIs may increase respiratory depression
  Certain opioids with MAOIs can cause serotonin syndrome

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

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

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

Drugs that inhibit or induce CYP enzymes can increase or lower blood levels of some opioids
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 UDT and pill counts
- Refill procedure
- Identify behaviors indicating need for discontinuation
- Exit strategy
- Signed by both
# PPA NONADHERENCE

Behavior outside the boundaries of agreed-on treatment plan

<table>
<thead>
<tr>
<th>Unsanctioned dose escalations or other noncompliance with therapy on 1 or 2 occasions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unapproved use of the drug to treat another symptom</td>
</tr>
<tr>
<td>Openly acquiring similar drugs from other medical sources</td>
</tr>
<tr>
<td>Multiple dose escalations or other noncompliance with therapy despite warnings</td>
</tr>
<tr>
<td>Prescription forgery</td>
</tr>
<tr>
<td>Obtaining prescription drugs from nonmedical sources</td>
</tr>
</tbody>
</table>

Any of these behaviors' merits investigation: proceed with caution
CASE DISCUSSION: Jacob

Jacob, a 30-year-old man who suffers with fibromyalgia.

What is the best opioid for him?
<table>
<thead>
<tr>
<th>Name</th>
<th>Substance Class</th>
<th>Mechanism of Action</th>
<th>Recommended Dosage</th>
<th>Grade of Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitriptyline</td>
<td>TCA</td>
<td>Inhibition of NE and 5HT transporter (1);*</td>
<td>10-50 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Cyclobenzaprine</td>
<td>TCA derivative</td>
<td>1; **</td>
<td>10-40 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Duloxetine</td>
<td>SNRI</td>
<td>1</td>
<td>20-120 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Milnacipran</td>
<td>SNRI</td>
<td>1</td>
<td>100-200 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Pregabalin</td>
<td>Anticonvulsant</td>
<td>Modulation of a2d subunit of presynaptic Ca channel (2);</td>
<td>300-450 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>Anticonvulsant</td>
<td>2; increased GABA turnover</td>
<td>1200 mg/day</td>
<td>Weak for</td>
</tr>
<tr>
<td>Tramadol</td>
<td>Opioid</td>
<td>m agonist; 1</td>
<td>150 mg/day</td>
<td>Weak for</td>
</tr>
</tbody>
</table>

*5-HT_{2A}, 5-HT_{2C}, 5-HT_{6}, 5-HT_{7} receptor antagonism  
**5-HT_{2A} receptor antagonism

GRADE system for making recommendations modified from Schmidt-Wilcke & Diers. 2017.
CASE DISCUSSION: Jacob

Jacob, a 30-year-old man who suffers with fibromyalgia.

What is the best opioid for him?

What if he suffers with alcohol use disorder?
CASE DISCUSSION: Norma

- Norma, a 60-year-old woman has chronic disabling osteoarthritis pain.
- Non-pharmacologic and non-opioid therapies have not provided relief.
- There is no psychiatric history and no family history of addiction.
- Is this patient an opioid candidate?
## ONGOING AND LONG-TERM MANAGEMENT OF PATIENTS ON OPIOID ANALGESICS

### PERIODIC REVIEW OF PAIN

- Is the patient making progress toward their 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 PDMP (when clinically indicated or legally mandated)
- Use urine drug testing (UDT)
- Reassess risk of 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?
## WHEN TO MOVE FROM IR TO ER/LA OPIOIDS

<table>
<thead>
<tr>
<th>PRIMARY REASONS</th>
<th>OTHER POTENTIAL REASONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Maintain stable blood levels (steady state plasma)</td>
<td>• Patient desire or need to try a new formulation</td>
</tr>
<tr>
<td>• Longer duration of action</td>
<td>• Cost or insurance issues</td>
</tr>
<tr>
<td>• Multiple IR doses needed to achieve effective analgesia</td>
<td>• Adherence issues</td>
</tr>
<tr>
<td>• Poor analgesic efficacy despite dose titration</td>
<td>• Change in clinical status requiring an opioid with different pharmacokinetics</td>
</tr>
<tr>
<td>• Less sleep disruption</td>
<td>• Problematic drug-drug interactions</td>
</tr>
</tbody>
</table>
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 AEs**
- 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

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

Products restricted to opioid tolerant individuals include transdermal fentanyl and hydromorphone.

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)

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
EXAMPLE OF AN EDT FOR ADULTS

<table>
<thead>
<tr>
<th>DRUG</th>
<th>SC/IV</th>
<th>PO</th>
<th>PARENTERAL</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>10 mg</td>
<td>30 mg</td>
<td>2.5 – 5 mg SC/IV q3 – 4hr (1.25 – 2.5 mg)</td>
<td>5 –15 mg q3 – 4hr (IR or oral solution) (2.5 – 7.5 mg)</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>NA</td>
<td>20 mg</td>
<td>NA</td>
<td>5 –10 mg q3 – 4hr (2.5 mg)</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>NA</td>
<td>30 mg</td>
<td>NA</td>
<td>5 mg q3 – 4hr (2.5 mg)</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1.5 mg</td>
<td>7.5 mg</td>
<td>0.2 – 0.6 mg SC/IV q2 – 3hr (0.2 mg)</td>
<td>1– 2 mg q3 – 4hr (0.5 – 1 mg)</td>
</tr>
</tbody>
</table>
GUIDELINES FOR OPIOID ROTATION

**Calculate** equianalgesic dose of new opioid from EDT

<table>
<thead>
<tr>
<th>*<em>REDUCE CALCULATED EQUIANALGESIC DOSE BY 25% – 50%</em></th>
<th><strong>SELECT % REDUCTION BASED ON CLINICAL JUDGMENT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLOSER TO 50% REDUCTION IF PATIENT</strong></td>
<td><strong>CLOSER TO 25% REDUCTION IF PATIENT</strong></td>
</tr>
<tr>
<td>• Is receiving a relatively high dose of current opioid regimen</td>
<td>• Does not have these characteristics</td>
</tr>
<tr>
<td>• Is elderly or medically frail</td>
<td>• Is changing route of administration</td>
</tr>
</tbody>
</table>

*75% – 90% reduction for methadone
GUIDELINES FOR OPIOID ROTATION (continued)

IF SWITCHING TO METHADONE:

• Standard EDTs 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
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
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
## WINDOWS OF SPECIFIC DRUG DETECTION

<table>
<thead>
<tr>
<th>Drug</th>
<th>How soon after taking drug will there be a positive drug test?</th>
<th>How long after taking drug will there continue to be a positive drug test?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis/pot</td>
<td>1 – 3 hours</td>
<td>1 – 7 days</td>
</tr>
<tr>
<td>Crack (cocaine)</td>
<td>2 – 6 hours</td>
<td>2 – 3 days</td>
</tr>
<tr>
<td>Heroin (opiates)</td>
<td>2 – 6 hours</td>
<td>1 – 3 days</td>
</tr>
<tr>
<td>Speed/uppers (amphetamine, methamphetamine)</td>
<td>4 – 6 hours</td>
<td>2 – 3 days</td>
</tr>
<tr>
<td>Angel dust/PCP</td>
<td>4 – 6 hours</td>
<td>7 – 14 days</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>2 – 7 hours</td>
<td>2 – 4 days</td>
</tr>
<tr>
<td>Benzodiazepine</td>
<td>2 – 7 hours</td>
<td>1 – 4 days</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>2 – 4 hours</td>
<td>1 – 3 weeks</td>
</tr>
<tr>
<td>Methadone</td>
<td>3 – 8 hours</td>
<td>1 – 3 days</td>
</tr>
<tr>
<td>Tricyclic antidepressants</td>
<td>8 – 12 hours</td>
<td>2 – 7 days</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1 – 3 hours</td>
<td>1 – 2 days</td>
</tr>
</tbody>
</table>

SOURCE: [http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/InVitroDiagnostics/DrugofAbuseTests/ucm125722.htm](http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/InVitroDiagnostics/DrugofAbuseTests/ucm125722.htm)
EXAMPLES OF OPIOID METABOLISM

*6-MAM=6-Monoacetylmorphine
ABUSE DETERRENT OPIOIDS

- Oxycodone/naloxone ER
  - Targiniq ER®
- Buprenorphine/naloxone
  - Generic
  - Suboxone®
  - Zubsolv®
  - Bunavail®
- Morphine sulfate/naltrexone ER
  - Embeda®
- Oxycodone/naltrexone ER
  - Troxvca ER®
ABUSE DETERRENT OPIOIDS

- Hydrocodone ER
  - Hysingla ER®
  - Zohydro ER®
  - Vantrela ER®
- Hydromorphone ER
  - Embeda®
- Oxycodone ER* and IR**
  - *Oxycontin®
  - *Xtampza®
  - **Oxaydo®
  - **Roxybond® (4/20/2017)
- Morphine sulfate ER
  - Arymo ER®
# REASONS FOR DISCONTINUING OPIOIDS

## PAIN LEVEL DECREASE IN STABLE PATIENTS

## INTOLERABLE AND UNMANAGEABLE AEs

## 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
## 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
- 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, and treatment plans.
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
  • a family 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/remsfda/Patient_Counseling_Guide.pdf
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
## Transdermal/Transmucosal Dosage Forms

<table>
<thead>
<tr>
<th>Prepare skin: clip (not shave) hair and wash area with water</th>
<th>Rotate location of application</th>
<th>Do not apply buccal film products if film is cut, damaged, or changed in any way -- use the entire film</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note that metal foil backings are not safe for use in MRIs</td>
<td>Monitor patients with fever for signs or symptoms of increased opioid exposure</td>
<td>Note that exertion or exposure to external heat can lead to fatal overdose</td>
</tr>
</tbody>
</table>
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
If not immediately recognized and treated, may lead to respiratory arrest and death

**Greatest risk:** during initiation of therapy 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**
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

- 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  Nasal Spray  Auto-injector

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

# Naloxone Regulation

<table>
<thead>
<tr>
<th>Effective date</th>
<th>September 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Immunity</td>
<td></td>
</tr>
</tbody>
</table>
Prescribers: **Yes**  
Dispensers: **Yes**  
Lay People: **Yes** |
| Also Available |  
Without Prescription: **Yes**  
To 3rd Party: **Yes**  
By Standing Order: **Yes** |
| Carried by First Responders | **Yes** |

www.pdaps.org  
Dec. 2018
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

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

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”

Mail-Back Packages
• Obtain from authorized collectors

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

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

# WOMEN OF CHILDBEARING POTENTIAL

Neonatal opioid withdrawal syndrome is a potential risk of opioid therapy

<table>
<thead>
<tr>
<th>GIVEN THIS POTENTIAL RISK, CLINICIANS SHOULD:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Discuss family planning, contraceptives, breast feeding plans with patients</td>
</tr>
<tr>
<td>• Counsel women of childbearing potential about risks and benefits of opioid therapy during pregnancy and after delivery</td>
</tr>
<tr>
<td>• Encourage minimal/no opioid use during pregnancy, unless potential benefits outweigh risks to fetus</td>
</tr>
<tr>
<td>• Refer to a high-risk OB/Gyn who will ensure appropriate treatment for the baby</td>
</tr>
</tbody>
</table>

• Perform universal screening to avoid neonatal abstinence syndrome

• For women using opioids on a daily basis, consider methadone or buprenorphine

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

OTHER POPULATIONS NEEDING SPECIAL TREATMENT CONSIDERATIONS

- Persons with sleep disorders or sleep-disordered breathing (sleep apnea)
- Persons with dementia/nonverbal patients
- Persons with obesity
- Persons with renal/hepatic impairment
- Persons with psychiatric disorders
- Persons at end-of-life
- Persons with substance use disorder
CHAPTER 7
UNDERSTANDING OPIOID USE DISORDER (OUD)
# WHAT IS ADDICTION?

<table>
<thead>
<tr>
<th>OFFICIAL ASAM DEFINITION:</th>
<th>PRACTICAL DEFINITION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.</td>
<td>Addiction is the continued use of drugs or activities, despite knowledge of continued harm to one’s self or others.</td>
</tr>
</tbody>
</table>
“Certain People Use Certain Substances in Certain Ways Thought at Certain Times to Be Unacceptable by Certain Other People for Reasons Both Certain and Uncertain.”

SUBSTANCE USE DISORDER: DSM-5 CRITERIA

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

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

The usual illegal, illicit issues do not pertain.

Harm may be masked under these conditions.
WORDS MATTER

- Physiologic dependence or tolerance
- Doesn’t necessarily equal
- OUD/addiction
- Doesn’t necessarily equal
- Aberrant/problematic behavior
OPIOID RECEPTORS IN THE BRAIN: RELATIONSHIP TO ANALGESIA, OUD, AND WITHDRAWAL

1. Periaqueductal gray (pain center)
2. Nucleus accumbens (reward center)
3. Locus coeruleus (physical dependence/withdrawal center)
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
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 and resume 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

CASE DISCUSSION: Lin

32-year-old woman is scheduled for abdominal surgery with an expected five-day acute care stay followed by a 10-day surgical recovery time.

She is taking naltrexone 50 mg/day for opioid use disorder.

How should the naltrexone be managed?
CASE DISCUSSION: Lin

32-year-old woman is scheduled for abdominal surgery with an expected five-day acute care stay followed by a 10 day surgical recovery time.

She is taking naltrexone 50 mg/day for opioid use disorder.

How should the naltrexone be managed?

What about intramuscular naltrexone?
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](http://www.dailymed.nlm.nih.gov) or [https://opioidanalgesicrems.com/RpcUI/products.u](https://opioidanalgesicrems.com/RpcUI/products.u)

Please visit the CO*RE Tools Repository [http://core-rem.s.org/opioid-education/tools/](http://core-rem.s.org/opioid-education/tools/)
YOUR PARTICIPATION IS IMPORTANT

Thank you for completing the assessment for this CO*RE session.

Your participation in this test allows CO*RE to report de-identified numbers to the FDA.

Strong test participation will demonstrate that clinicians have voluntarily engaged with this important material and are committed to patient safety and improved outcomes.

THANK YOU!
THANK YOU!

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