

Implementing the CDC Guidelines for Opioid Prescribing

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Opioid
Response
Network
STR-TA



Working with communities to address the opioid crisis.

- ✧ SAMHSA's State Targeted Response Technical Assistance (STR-TA) grant created the *Opioid Response Network* to assist STR grantees, individuals and other organizations by providing the resources and technical assistance they need locally to address the opioid crisis .
- ✧ Technical assistance is available to support the evidence-based prevention, treatment, and recovery of opioid use disorders.

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Working with communities to address the opioid crisis.

- ✧ The Opioid Response Network (ORN) provides local, experienced consultants in prevention, treatment and recovery to communities and organizations to help address this opioid crisis.
- ✧ The ORN accepts requests for education and training.
- ✧ Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS), who is an expert in implementing evidence-based practices.



Contact the Opioid Response Network

✧ To ask questions or submit a request for technical assistance:

- Visit www.OpioidResponseNetwork.org
- Email orn@aaap.org
- Call 401-270-5900



Disclosures, Disclaimers, Acknowledgement

- ✧ Financial Conflicts of Interest
 - Dr Miller: no conflicts to disclose. I am a full-time VA employee
 - Dr Walia: no conflicts to disclose.
- ✧ Content should not be construed to represent the official position of the IDPH, SAMHSA, CDC, DVA, or any other governmental agency unless specifically stated.
- ✧ Off-label medication uses
 - Sublingual buprenorphine for treatment of pain
 - Clonidine for opioid withdrawal
- ✧ Special thanks to **Lee A. Kral, PharmD**, Adjunct Assistant Professor in Anesthesia and Adjunct Professor Clinical Pharmacy Practice, for advice, collaboration, and generously sharing teaching materials.



Learning Objectives

Participants will be able to:

- ✧ determine when initiation or continuation of opioids is indicated in the treatment of chronic pain;
- ✧ evaluate and mitigate risk related to opioid use through dose limitations, clinical reassessment, and monitoring tools like the prescription drug monitoring program and urine drug testing; and
- ✧ identify quality measures applicable to their clinical practices to assess implementation of the CDC guidelines.





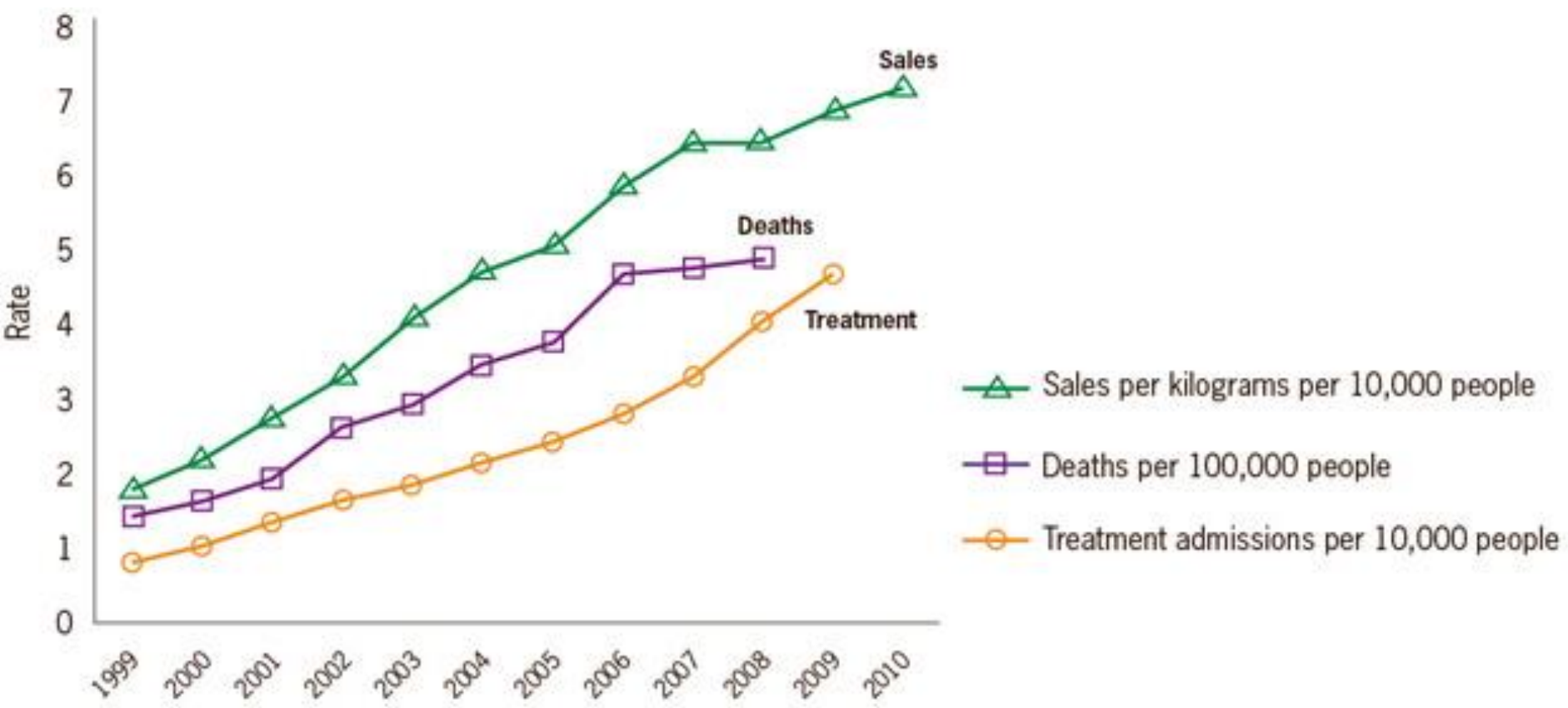
Background

Chronic Pain

- ✧ >3 months duration or past time of normal tissue healing
- ✧ 10-15% of adults in US
- ✧ Important consequences of pain that is not well controlled:
 - limitations in complex activities
 - lost work productivity
 - reduced quality of life
 - stigma



Rates of prescription painkiller sales, deaths and substance abuse treatment admissions 1999-2010



CDC 2011

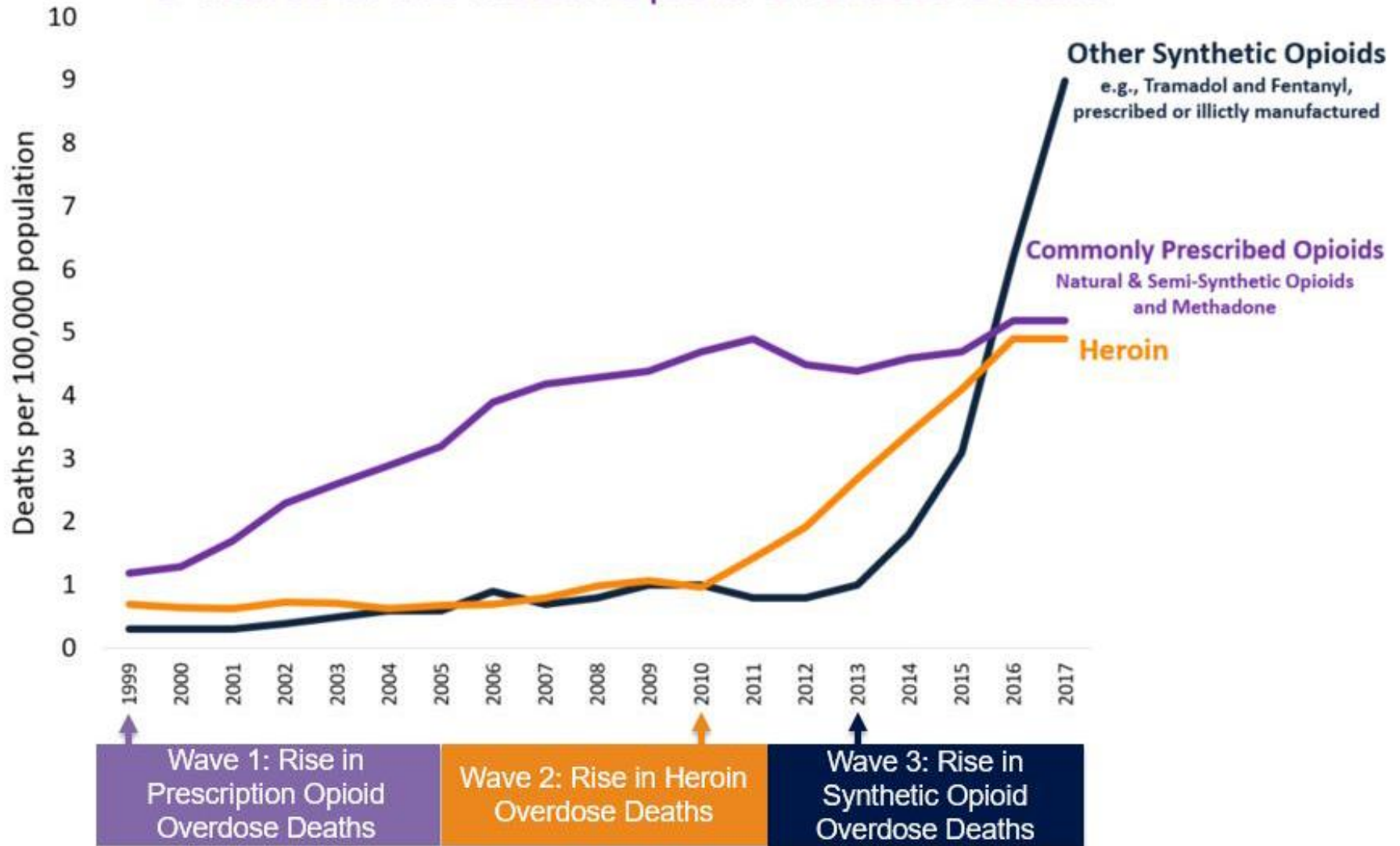


Opioid Prescription Data

- ✧ Approximately 20% of patients presenting to physician offices with non-cancer pain symptoms or pain-related diagnoses (including acute and chronic pain) receive an opioid prescription.
- ✧ In 2012, health care providers wrote 259 million prescriptions for opioid pain medication.
- ✧ Opioid prescriptions per capita increased 7.3% from 2007 to 2012



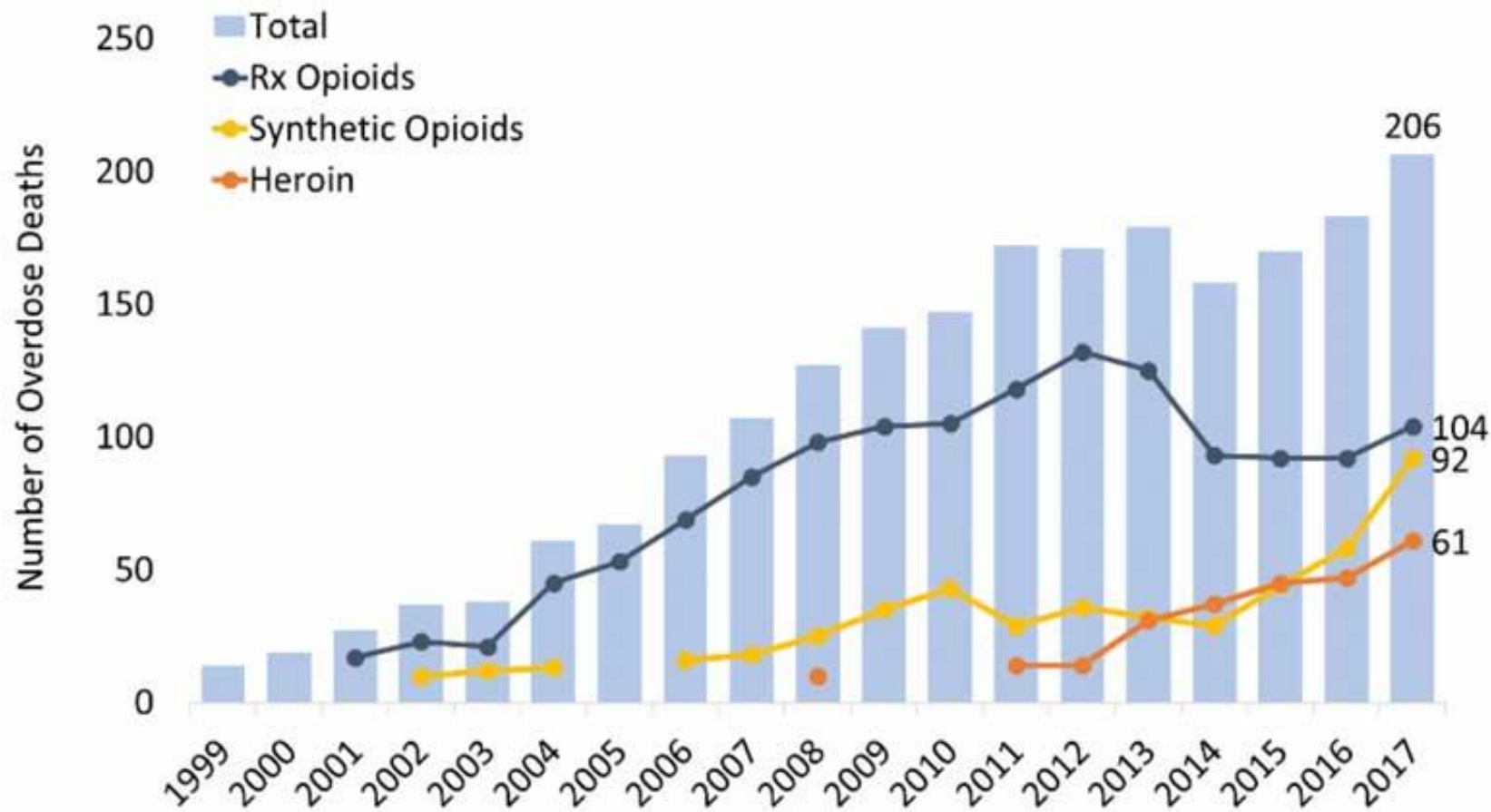
3 Waves of the Rise in Opioid Overdose Deaths



CDC 2018



Opioid involved Drug Overdose deaths in Iowa



For every **1** death there are...



10 treatment admissions for abuse⁹

32 emergency dept visits for misuse or abuse⁶

130 people who abuse or are dependent⁷

Fatal Overdoses are the Tip of the Iceberg

CDC 2011



Please note: An erratum has been published for this issue. To view the erratum, please click here.

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 65 / No. 1

March 18, 2016

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016



Continuing Education Examination available at <http://www.cdc.gov/mmwr/cme/conted.html>.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

<https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1er.htm>

Purpose

1. Address opioid use disorder and opioid overdose as public health problems.
2. Provide consistent guidance on opioid use based on current evidence.
3. Target audience: primary care providers.
4. Target population: adults with chronic pain (not acute, cancer, palliative or end of life).

Methods

1. Systematic review of evidence.
2. Expert opinion.
3. Stakeholder and public input.
4. Peer review.



CDC, 2016



Balancing harms of poorly controlled pain vs risks of medications



GRADE Methodology

Grading of Recommendations Assessment, Development, and Evaluation

Recommendation

- A. Applies to all patients
- B. Depends on specifics of case

Type of Evidence

1. Randomized clinical trials or overwhelming evidence from observational studies.
2. Randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies.
3. Observational studies or randomized clinical trials with notable limitations.
4. Clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations.



- Summarizes guidelines.
- Implementation using Quality Improvement principles.
- QI measures.
- Anticipating/addressing barriers to implementation.
- Tools
 - Practice assessment
 - Patient assessment
 - Patient education
 - Treatment agreements
 - Sample policies
 - Provider education/guidance



<https://www.cdc.gov/drugoverdose/pdf/prescribing/CDC-DUIP-QualityImprovementAndCareCoordination-508.pdf>



2018 Iowa Opioid Legislation

- ✧ Prescription Monitoring Program updates
- ✧ Requires electronic prescribing of controlled substances by 2020.
- ✧ Requires prescriber training on CDC guidelines.
- ✧ Limited Good Samaritan protections for people calling 911 to report overdose.



Case

- ✧ RK - 82 yr old man with history of bilateral knee and hip osteoarthritis (Grade 4 of the R hip), has had L THA and R TKA. He has undergone several knee and hip steroid injections and doing PT. Has received RFA of R hip without relief.
- ✧ PMH – CAD with stents x 2, GERD, HTN, HLP, depression, COPD, CKD Stage II
- ✧ SH – lives independently, can do ADL's but daughter helps him run errands, attend medical appts. Does not smoke or drink alcohol



Case

✧ Medications

- Ipratropium MDI 2 puffs qid
- Albuterol MDI 2 puffs PRN
- Atorvastatin 40mg qhs
- Acetaminophen 650mg x2 bid
- Lisinopril 20mg daily
- ASA 81mg daily
- Sertraline 200mg daily
- Omeprazole 20mg daily
- Zolpidem 10mg qhs PRN



Question

- ✧ What analgesic should we choose for RK's osteoarthritis pain?
- a. Lidocaine patch
 - b. Naproxen
 - c. Gabapentin
 - d. Oxycodone





CDC Recommendation #1

Opioids are not first-line therapy.

Nonpharmacologic therapy and nonopioid pharmacology are preferred for chronic pain. Clinicians should continue opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate

Recommendation: **A**
Evidence: **3**

Opioids not 1st line therapy

- ✧ Use non-pharmacologic therapies
- ✧ Use non-opioid pharmacologic therapies for as short a time as possible
- ✧ If all other options fail, weigh risks and benefits of opioid therapy
- ✧ Opioids should not be used as monotherapy, should be combined with non-opioid therapy (even for acute pain)



Why?

- ✧ Opioids have not been shown to improve long-term function, pain or quality of life (> 1 yr)
- ✧ Opioids are not well tolerated. Many patients stop them due to side effects or ineffectiveness.
 - So what happens to all that left over medication??????
- ✧ Chronic opioid use is associated with opioid misuse and dependence
 - Risk factors: hx substance abuse, younger age, major depression, use of psychotropics

<https://effectivehealthcare.ahrq.gov/topics/chronic-pain-opioid-treatment/research>

- Currently undergoing new systematic review – protocol at

<https://effectivehealthcare.ahrq.gov/topics/opioids-chronic-pain/protocol>



Discuss Non-Opioid Analgesics

Treating Musculoskeletal Pain

- ✧ Acetaminophen
 - Usually first-line due to safety
 - Acetaminophen vs. placebo for spinal pain and osteoarthritis found acetaminophen to be ineffective for long-term use in chronic pain.¹
- ✧ NSAIDs
 - All equally effective
 - Better than placebo for back pain without sciatica, but not for back pain with sciatica^{2,3}
 - Increased risk for patients with heart disease
 - More effective for osteoarthritis pain than acetaminophen



¹Machado 2015. ²Berry 1982. ³Schnitzer 2004. Kral 2019.

Other Pharmacological Options

✧ Adjuncts:

- **Antidepressants:** TCAs, SNRIs, SSRIs
- **Anticonvulsants:** Gabapentin, Pregabalin, Carbamazepine, Oxcarbazepine, Topiramate, Lamotrigine, Divalproex sodium, Zonisamide
- **Clonidine**
- **NMDA Antagonists**

✧ **Muscle Relaxants:** Methocarbamol, Tizanidine, Cyclobenzaprine, Baclofen

✧ **Topical Preparations:** Lidocaine, Steroid, Diclofenac, DMSO, capsaicin, Compounded mixtures



Multimodal Treatment Approach

- ✧ Pharmacological options
- ✧ Physical therapy
- ✧ Pain Psychology
 - CBT
 - ACT
- ✧ Procedural Interventions
 - Diagnostic
 - Therapeutic
 - Adjunctive
- ✧ Integrative medicine
- ✧ Pain Education





CDC Recommendation #2

Establish goals for pain and function.

Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh the risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risk to patient safety.

Recommendation: **A**
Evidence: **4**

Establish and measure treatment goals

- ✧ Treatment goals are **NOT**:
 - A number (0-10)
 - “It takes the edge off”
 - “It’s better than nothing”
 - “I feel better but I still can’t get out of bed”
 - Complete pain relief



Establish and measure treatment goals

- ✧ Treatment goals **ARE:**
 - Meaningful increase in ADLs
 - Fewer missed days of work due to pain
 - “I went to my grandson’s baseball game”
 - “I worked in my garden”
 - Regular committed attendance at PT and/or psychology
 - Living independently



What are RK's goals?

#1 Goal is to “live independently”

- Wants to stay out of a “nursing home”

#2 Goal is to cook and take care of himself

#3 Goal is to be able to go to the local café for coffee with friends

- Gave up golfing and doesn't want to give up other social activities



Question

- ✧ What analgesic should we choose for RK's osteoarthritis pain?
- a. Lidocaine patch
 - b. Naproxen
 - c. Gabapentin
 - d. Oxycodone





CDC Recommendation #3

Discuss risks, benefits, and responsibilities.

Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

Recommendation: **A**
Evidence: **3**

Discuss Risks and Benefits of Opioids

✧ Benefits

- Possible adjunctive therapy for acute and chronic painful conditions
- Comfort in end-of-life care

✧ Adverse effects

- Constipation, nausea, vomiting, dry mouth, urinary retention
- Sedation, confusion, serotonin syndrome
- Respiratory depression
- Itching, rash
- Hyperalgesia



Opioid induced endocrine changes

- ✧ Opioids suppress the HPG and HPA axes
 - Within weeks of initiation
 - Doses > 100 mg MME
- ✧ Decrease in GnRH in hypothalamus leads to
 - Decrease in LH, FSH, estradiol, testosterone, etc
- ✧ Decrease in CRH release from hypothalamus leads to
 - Decrease in release of ACTH, then DHEA and cortisol
- ✧ Clinical Effects
 - Women: altered menstrual flow, infertility
 - Men (53-90%): impotence, fatigue
 - Both: Osteopenia/osteoporosis, adrenal insufficiency



Opioid induced immunosuppression

- ✧ Occurs both with acute and chronic use
- ✧ Inhibits lymphocyte proliferation
- ✧ Reduces NK cell cytolytic activity
- ✧ Alters Ab-dependent cell-mediated cytotoxicity
- ✧ Suppresses hematopoietic cell development
- ✧ Apoptosis is accelerated
- ✧ Buprenorphine, tramadol appear safer

Sacerdote 2012. Vallejo 2004. Kral 2019.



Infection Risk

- ✧ Increased risk of invasive pneumococcal disease
 - aOR = 1.62 vs non-opioid users
 - Greater risk with long-acting opioid (aOR =1.87)
 - Greater risk with high potency opioid(aOR =1.72)
 - Greater risk with high dosages (50-90 MME/d) (aOR 1.75)



Evaluate Safety Risk factors

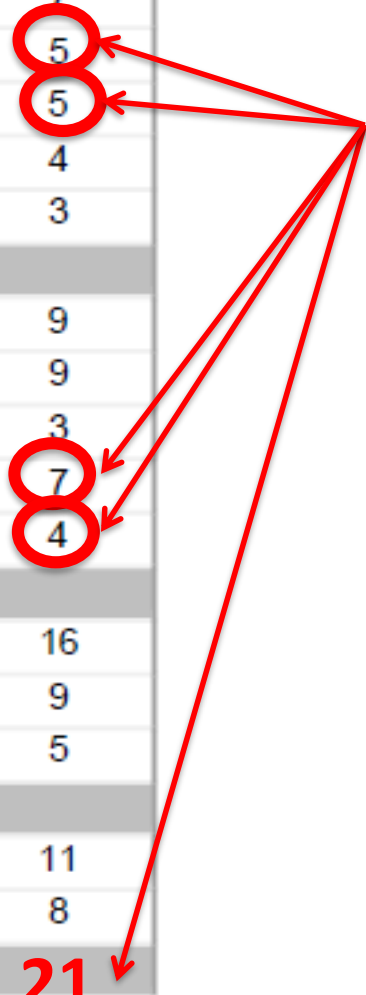
- ✧ Before starting and periodically during ongoing therapy, clinicians should evaluate risk factors for opioid-related harms
 - Sleep study to identify/confirm sleep-disordered breathing
 - Co-morbidities that increase risk
 - New medications that may increase risk



Risk Index for Overdose or Serious Opioid-Induced Respiratory Depression (RIOSORD)

In the past 6 months, has pt had a health care visit involving:	
Opioid dependence?	15
Chronic hepatitis or cirrhosis?	9
Bipolar disorder or schizophrenia?	7
Chronic pulmonary disease?	5
Chronic kidney disease with sig. renal impairment?	5
Active traumatic injury, excluding burns?	4
Sleep apnea?	3
Does the patient consume:	
Extended-release or long-acting (ER/LA) opioid?	9
Methadone?	9
Oxycodone?	3
A prescription antidepressant?	7
A prescription benzodiazepine?	4
Is the patient's current maximum prescribed opioid dose:	
>100 mg morphine equivalents per day?	16
50-100 mg morphine equivalents per day?	9
20-50 mg morphine equivalents per day?	5
In the past 6 months, has the patient:	
Had 1 or more ED visits?	11
Been hospitalized for 1 or more days?	8
Total Score (Max 115)	21

Our patient, RK



Opioid Induced Respiratory Depression (OIRD)

Probability based on Calculated Risk Index

Risk index score	OIRD probability (%)
0-24	3
25-32	14
33-37	23
38-42	37
43-46	51
47-49	55
50-54	60
55-59	79
60-66	75
≥67	86

Our patient, RK



Opioid Risk Tool

Mark each that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Predict opioid misuse risk:

- ≤ 3 low
- 4-7 intermediate
- ≥ 8 high

1 **Our patient, RK**



Question Break!

Recommendations 1-3





CDC Recommendation #4

Use immediate-release opioids when starting.

When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

Recommendation: **A**
Evidence: **4**

Start with a short-acting opioid

- ✧ Initiate any opioid trial with ≤ 2 weeks of short-acting opioid *(of course this may need to be a 7 day supply now..)*
 - Easier to stop if adverse effects
 - Will know within a few doses if adequate relief
 - Starting with ER/LA product = greater risk of overdose
 - No difference between short vs. long-acting product on pain or function
- ✧ May transition to long-acting opioid if successful trial and appropriate daily dose is determined





CDC Recommendation #5

Use the lowest effective dose.

When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥ 90 MME/day or carefully justify a decision to titrate dosage to ≥ 90 MME/day.

Recommendation: **A**
Evidence: **3**

Calculating morphine milligram equivalents (MME)

✧ Online calculators:

- <https://globalrph.com/medcalcs/opioid-pain-management-converter-advanced/>
- <http://www.agencymeddirectors.wa.gov/Calculator/DoseCalculator.htm>

✧ Caveats:

- Do not account for individual genetics / pharmacokinetics
- Incomplete cross-tolerance: reduce dose when changing med
- Methadone equivalents are highly variable and non-linear!

✧ Common:

- 50 MME = Hydrocodone 50 mg = Oxycodone 33 mg = Methadone 12 mg
- 90 MME = Hydrocodone 90 mg = Oxycodone 60 mg = Methadone 20 mg = Fentanyl patch 37.5 mcg/hr

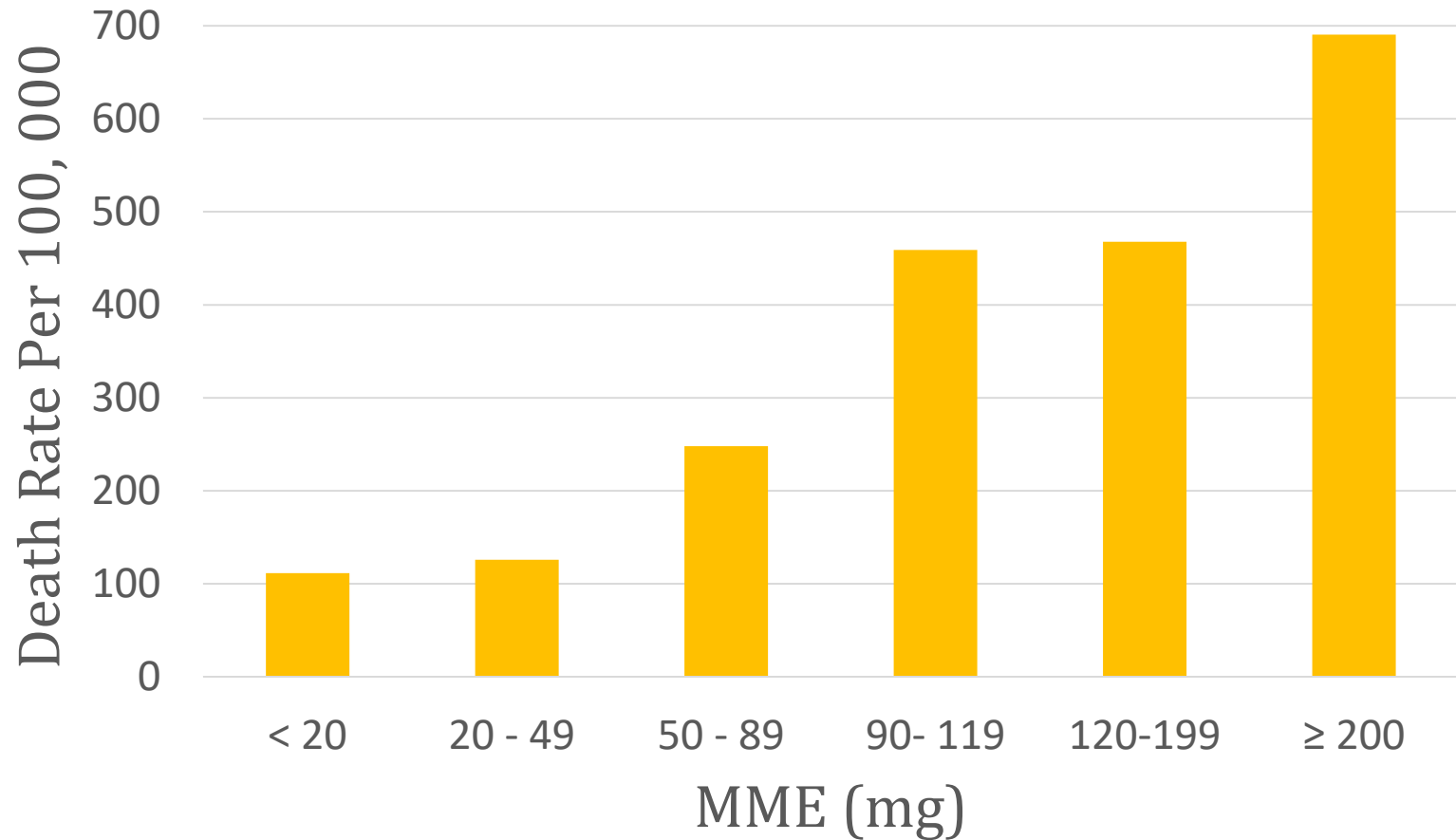


Start low and go slow

- ✧ Most patients who respond to opioid therapy have a significant response with a small dose
- ✧ No difference in pain relief with conservative vs. liberal dosing
- ✧ Doses \geq 50mg morphine milligram equivalents (MME)/day carry increased risk of death
- ✧ Avoid doses \geq 90 MME/day due to increased risk of death
- ✧ If dose is already \geq 90 MME/day, consider small dose reduction



Higher dose = Greater risk



CDC Recommendation #6

Prescribe short durations for acute pain.

Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

Recommendation: **A**
Evidence: **4**

Short course for acute pain

- ✧ Opioid treatment for post-surgical pain is outside the scope of this guideline – this is only for acute pain in primary care
- ✧ If opioids are prescribed, use short-acting agents for faster onset and flexibility of PRN use
- ✧ Use the lowest dose for the shortest period of time
- ✧ Most minor procedures/injury (dental extraction, bunionectomy, laparoscopic surgery, low back strain) do not require opioid therapy as it isn't more effective than NSAIDs
- ✧ If opioids are prescribed, limit to 3-7day supply if not related to surgery or trauma
- ✧ Use multimodal analgesia, opioids should not be used alone

See <http://michigan-open.org/new-opioid-prescribing-recommendations-for-2019/> for information about opioid use after common surgical procedures





CDC Recommendation #7

Evaluate benefits and harms frequently.

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

Recommendation: **A**
Evidence: **4**

Follow-up with Chronic Therapy

- ✧ Follow-up in 1-4 weeks of initiation/increase
 - Assess and document the 5A's (analgesia, adverse effects, affect, aberrant behavior, ADLs)
- ✧ If stable dose, should follow-up at least every 3 months
 - Random urine drug testing
 - State/regional PDMP report
- ✧ If no functional improvement, reduce dose to avoid adverse effects



Question Break!

Recommendations 4 - 7



Another case: M.A.

- ✧ 47 y.o. woman, new to your practice after relocating from Missouri.
- ✧ Medical history (per pt report... no records or images)
 - Chronic low back pain. Reports 2 herniated lumbar discs. Opioid therapy for past 15 years.
 - Fibromyalgia diagnosed 5 years ago.
 - Chronic headaches for 5 years.
 - G2P2.
 - Postmenopausal
- ✧ Exam:
 - VS: Ht 5'4", Wt 187#, BMI 32, bp 138/92, p 90, rr 12, SaO₂ 95%
 - Diffuse tenderness to palpation



M.A., continued

- ✧ Medications:
 - Oxycodone SA 20 mg p.o. Q.I.D.
 - Oxycodone 5 mg / APAP 325 mg p.o. Q.I.D. prn “breakthrough” pain (using all doses)
 - (Oxycodone 100 mg/day = 150 MME).
 - Duloxetine 20 mg p.o. Q.AM for fibromyalgia
 - Diphenhydramine 100 mg p.o. Q.HS for sleep
 - One bottle Mg Citrate 2-3 times per week for constipation
- ✧ NSAIDs upset her stomach. PT? “I’ve done all that and it doesn’t help.”
- ✧ She inquires about increasing her “breakthrough” oxycodone/apap. “I know what works. I just need a little bit more.”



M.A., continued

- ✧ Iowa PMP and data-sharing states: no Rx found. She allows you to contact her pharmacy in Missouri which confirms prescriptions and dosages, no problems with early fills.
- ✧ What do you do next?



Tapering Opioids

✧ When to taper?

- Not effective.
- Therapy no longer needed.
- Risks: adverse effects, hyperalgesia, misuse

✧ How fast to taper?

- Lack of evidence to support a particular schedule.
- Individual factors vary widely



Opioid taper guidelines

Guideline	Taper rate
American Pain Society and American Academy of Pain Medicine, 2009	Slow 10% reduction/week to rapid 25%-50% reduction/few days
Utah State, 2009	10% reduction/week over 6 to 8 weeks
VA / Dept. of Defense, 2010	Taper by 20%-50% per week; faster or slower tapering may be warranted
WA State Agency Med Directors, 2010	10% reduction/week over 6 to 8 weeks
Canadian, 2011	Variable; 10% of the total daily dose every day, or 10% of the total daily dose every 1–2 weeks
NYC Dept of Health and Mental Hygiene, 2011	Reduction of 10% each day, 20% every 3 to 5 days, or 25% each week
American Society of Interventional Pain Physicians, 2012	Decrease by 10% of the original dose per week



Tapering opioids, additional considerations

- ✧ See patient frequently to assess tolerability/efficacy of taper
 - Slower: longer duration of exposure, higher doses, reliable patient, no toxicities, more residual pain, patient anxious or having difficulty tolerating withdrawal symptoms
 - Faster: shorter/lower dose exposures, treatment agreement violations, adverse effects of med, dangerous use
- ✧ Reassess options for nonopioid pain mgmt
- ✧ Address depression, anxiety, insomnia
- ✧ Consider adjuncts for withdrawal symptoms:
 - clonidine (tremor, sweats/chills, anxiety, tachycardia/htn)
 - dicyclomine (abdominal cramping, diarrhea)
 - NSAIDs / APAP (myalgias, arthralgias, headache)
 - Antiemetic for nausea/vomiting



M.A.

- ✧ After discussion of hyperalgesia and other risks, she agrees (reluctantly) to increasing duloxetine dose, then reducing her daily oxycodone use by 10 mg (10% reduction) with a plan to see you again in 2 months.





CDC Recommendation #8

Use strategies to mitigate risk. Naloxone.

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 MME/day), or concurrent benzodiazepine use, are present.

Recommendation: **A**
Evidence: **4**

Periodic Risk Re-assessment

- ✧ Sleep-disordered breathing
- ✧ Renal and hepatic insufficiencies
- ✧ Age > 65
- ✧ Mental health comorbidity
- ✧ Substance use, *esp* alcohol and sedating drugs
- ✧ Prior nonlethal overdose



Naloxone

- ✧ Consider prescribing for high risk opioid patients
- ✧ Also available in Iowa without prescription via IDPH standing order
- ✧ Forms available via standing order: prefilled syringes with mucosal atomizer, nasal spray kit (Narcan Nasal™), IM autoinjector (Evzio™)
- ✧ Information about products and how to prescribe at: [PrescribeToPrevent.org](https://www.PrescribeToPrevent.org)



Naloxone

- ✧ Caregiver education is essential!
 - Recognizing overdose:
 - Coma/unresponsiveness
 - Pinpoint pupils
 - Respiratory depression: absent, diminished, or agonal breathing
 - May need BLS in addition to naloxone
 - May need repeat dose
 - Always call 911! Naloxone buys time but is no substitute for emergency medical attention.
 - Opioids may outlast the naloxone





CDC Recommendation #9

Review Prescription Drug Monitoring Program data.

Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

Recommendation: **A**
Evidence: **4**

Iowa PMP

- ✧ <https://iowa.pmpaware.net/login>
- ✧ Controlled substance prescription information:
 - Med - Prescriber - Dose equivalency
 - Date rx'd - Pharmacy - Defaults to past 2 yr
 - Date filled - Payer
- ✧ Interstate queries for 19 other states, DC, DoD



2018 Iowa Opioid Legislation: Prescription Monitoring Program updates

- ✧ Prescribers must register with PMP and must consult prior to issuing an opioid prescription.
- ✧ Pharmacies must report dispensing within 1 business day.
- ✧ PMP collects and reports naloxone administration.
- ✧ Provider profile reports.
- ✧ Proactive reporting of apparent “doctor shopping”.



What do those risk scores mean?

NARX SCORES			OVERDOSE RISK SCORE
Narcotic	Sedative	Stimulant	540 (Range 000-999)
350	180	000	

- ✧ Proprietary algorithm of Appriss Health (PMP software vendor)
- ✧ Based on PMP data only.
- ✧ Considers dose, # of prescribers and pharmacies, recency, overlap.
- ✧ Higher number = higher risk. (Of what? For class-specific scores, not explained.)
- ✧ Not extensively validated. Vendor provides a self-published validation study (Huizenga 2016). I found nothing in PubMed search.
- ✧ As always, treat the patient, not the number



PMP “Resources” tab

INFORMATIONAL DOCUMENTS

Click the associated link and print. View more information about resources. (<https://www.cdc.gov/drugoverdose/prescribing/resources.html>)

What You Need to Know

PRESCRIPTION OPIOIDS: WHAT YOU NEED TO KNOW

Prescription opioids are licensed to help relieve moderate to severe pain and are often prescribed following a surgery or injury. In the correct hands and conditions, these medications can be an important part of treatment that can ease pain safely. It is important to work with your health care provider to make sure you are getting the safest, most effective care.

WHAT ARE THE RISKS AND SIDE EFFECTS OF OPIOID USE?

Prescription opioids carry serious risks of addiction and overdose, especially with prolonged use. An opioid overdose often results in slowed breathing, can cause sudden death. The use of prescription opioids can have a number of side effects as well, such as constipation or dizziness.

- Addiction (forming an unhealthy reliance on the drug to feel normal)
- Physical dependence (needing the drug to feel normal, or withdrawal when a substance is stopped)
- Reduced ability to think
- Drowsiness
- Reduced ability to breathe
- Constipation
- Dry mouth
- Low blood pressure that can lead to dizziness or fainting
- Slowed breathing

RISKS ARE GREATER WITH:

- Higher (or long-term) prescription opioid use
- Being high when you feel at baseline or when you are sober
- Mixing with alcohol or other drugs
- Taking an OTC pain reliever
- Driving

Additional risks include prescription opioids:

- May affect your ability to drive or operate machinery
- May affect your ability to think
- May increase your risk of falls
- May increase your risk of dizziness
- May increase your risk of constipation
- May increase your risk of dry mouth
- May increase your risk of low blood pressure
- May increase your risk of slowed breathing
- May increase your risk of drowsiness
- May increase your risk of confusion
- May increase your risk of memory loss
- May increase your risk of impaired judgment
- May increase your risk of impaired coordination
- May increase your risk of impaired reflexes
- May increase your risk of impaired reaction time
- May increase your risk of impaired concentration
- May increase your risk of impaired attention
- May increase your risk of impaired perception
- May increase your risk of impaired taste
- May increase your risk of impaired smell
- May increase your risk of impaired hearing
- May increase your risk of impaired vision
- May increase your risk of impaired touch
- May increase your risk of impaired pain perception
- May increase your risk of impaired temperature perception
- May increase your risk of impaired pressure perception
- May increase your risk of impaired vibration perception
- May increase your risk of impaired proprioception
- May increase your risk of impaired balance
- May increase your risk of impaired posture
- May increase your risk of impaired gait
- May increase your risk of impaired coordination
- May increase your risk of impaired reaction time
- May increase your risk of impaired concentration
- May increase your risk of impaired attention
- May increase your risk of impaired perception
- May increase your risk of impaired taste
- May increase your risk of impaired smell
- May increase your risk of impaired hearing
- May increase your risk of impaired vision
- May increase your risk of impaired touch
- May increase your risk of impaired pain perception
- May increase your risk of impaired temperature perception
- May increase your risk of impaired pressure perception
- May increase your risk of impaired vibration perception
- May increase your risk of impaired proprioception
- May increase your risk of impaired balance
- May increase your risk of impaired posture
- May increase your risk of impaired gait

Prescription Opioids: What You Need to Know (PDF)
<https://www.cdc.gov/drugoverdose/pdf/aha-patient-opioid-factsheet-a.pdf>

Opioids and Chronic Pain

PROMOTING SAFER AND MORE EFFECTIVE PAIN MANAGEMENT

UNDERSTANDING PRESCRIPTION OPIOIDS

While opioids are effective for relieving pain, they also carry risks. It is important to understand the risks and benefits of these medications. For example, 1 in 4 people who take opioids for chronic pain become addicted.

- Addiction (forming an unhealthy reliance on the drug to feel normal)
- Physical dependence (needing the drug to feel normal, or withdrawal when a substance is stopped)
- Reduced ability to think
- Drowsiness
- Reduced ability to breathe
- Constipation
- Dry mouth
- Low blood pressure that can lead to dizziness or fainting
- Slowed breathing

OPPIOIDS AND CHRONIC PAIN

Chronic pain is a long-term condition that can affect anyone. It is important to understand the risks and benefits of these medications. For example, 43% of people with chronic pain are prescribed opioids.

PRESCRIPTION OPIOID OVERDOSE IS AN EPIDEMIC IN THE US

Promoting Safer and More Effective Pain Management (PDF)
https://www.cdc.gov/drugoverdose/pdf/guidelines_facspatients-a.pdf

Pregnancy and Opioids

PREGNANCY AND OPIOID PAIN MEDICATIONS

Women who take opioid pain medications should be aware of the possible risks during pregnancy.

WHAT ARE OPIOID PAIN MEDICATIONS?

Opioid pain medications are used to relieve moderate to severe pain. They can be used safely during pregnancy, but there are risks. For example, 1 in 4 women who take opioids during pregnancy have a baby who is born with withdrawal symptoms.

ARE OPIOID PAIN MEDICATIONS SAFE FOR WOMEN WHO ARE TRYING TO GET PREGNANT?

Opioid pain medications are used to relieve moderate to severe pain. They can be used safely during pregnancy, but there are risks. For example, 1 in 4 women who take opioids during pregnancy have a baby who is born with withdrawal symptoms.

Pregnancy and Opioids Pain Management (PDF)
<https://www.cdc.gov/drugoverdose/pdf/pregnancy-opioid-pain-management-a.pdf>

Pocket Guide: Tapering

POCKET GUIDE: TAPERING OPIOIDS FOR CHRONIC PAIN*

Fact Sheet

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

Checklist *

Checklist for prescribing opioids for chronic pain

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Back to M.A.

- ✧ Preparing for her follow-up visit, you recheck the Iowa PMP.

Date	Drug	Qty	Days Supply	Prescriber	Pharmacy
5/20/2019	APAP 325 / Butalbital 50 / Caffeine 40	60	30	Dr. Busy Doc	CRS
5/20/2019	Zolpidem 10 mg	30	30	Dr Busy Doc	CRS
5/11/2019	Alprazolam 1 mg	90	30	Dr. Feel Good	Hy Zee
5/1/2019	Oxy 5 / APAP 325	60	30	Dr. You	Wal Store
5/1/2019	Oxycodone SA 20 mg	120	30	Dr. You	Wal Store





CDC Recommendation #10

Use urine drug testing.

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

Recommendation: **B**
Evidence: **4**

M.A. UDS (immunoassay results)

Drug	Result
Amphetamine	POS (Prelim)
Barbiturate	POS (Prelim)
Benzodiazepine	NEG
Cannabisnoids	NEG
Cocaine	NEG
Opiates	POS (Prelim)
Oxycodone	POS (Prelim)
Methadone	NEG



Urine Drug Testing

It's OK to ask the patient to do urine drug testing!

- ✧ It's about safety
- ✧ Standard precautions
- ✧ (It's in the treatment agreement)

Know your lab!

Have a friend in lab medicine.



Urine Drug Testing: Validity Measures

- ✧ observed collection?
- ✧ temperature (within 1.8° F of oral body temp)
- ✧ creatinine (>5 mg/dL)
- ✧ specific gravity (>1.001)
- ✧ pH not that helpful (normal pH for human urine 4.5-8 overlaps with tap water, milk, coffee, tomato juice...)



Urine drug testing: Process

- ✧ 'Screen': Immunoassay tests
 - Quick results
 - Inexpensive
 - Fairly *sensitive*
 - Not very *specific*: False positives occur
- ✧ 'Confirmation': Gas chromatography / Mass spectroscopy
 - Longer to get results
 - Labor intensive/expensive
 - Excellent sensitivity and specificity



Know your lab

✧ *What* can your lab detect?

- Ex: Most benzodiazepine immunoassay screens are *sensitive* for diazepam, but not for alprazolam
- Ex: Most immunoassay screens screen for opiATEs and methadone, but not for other opiOIDS (like fentanyl, meperidine, tramadol)

✧ Know drug metabolism pathways to interpret *true positives*.

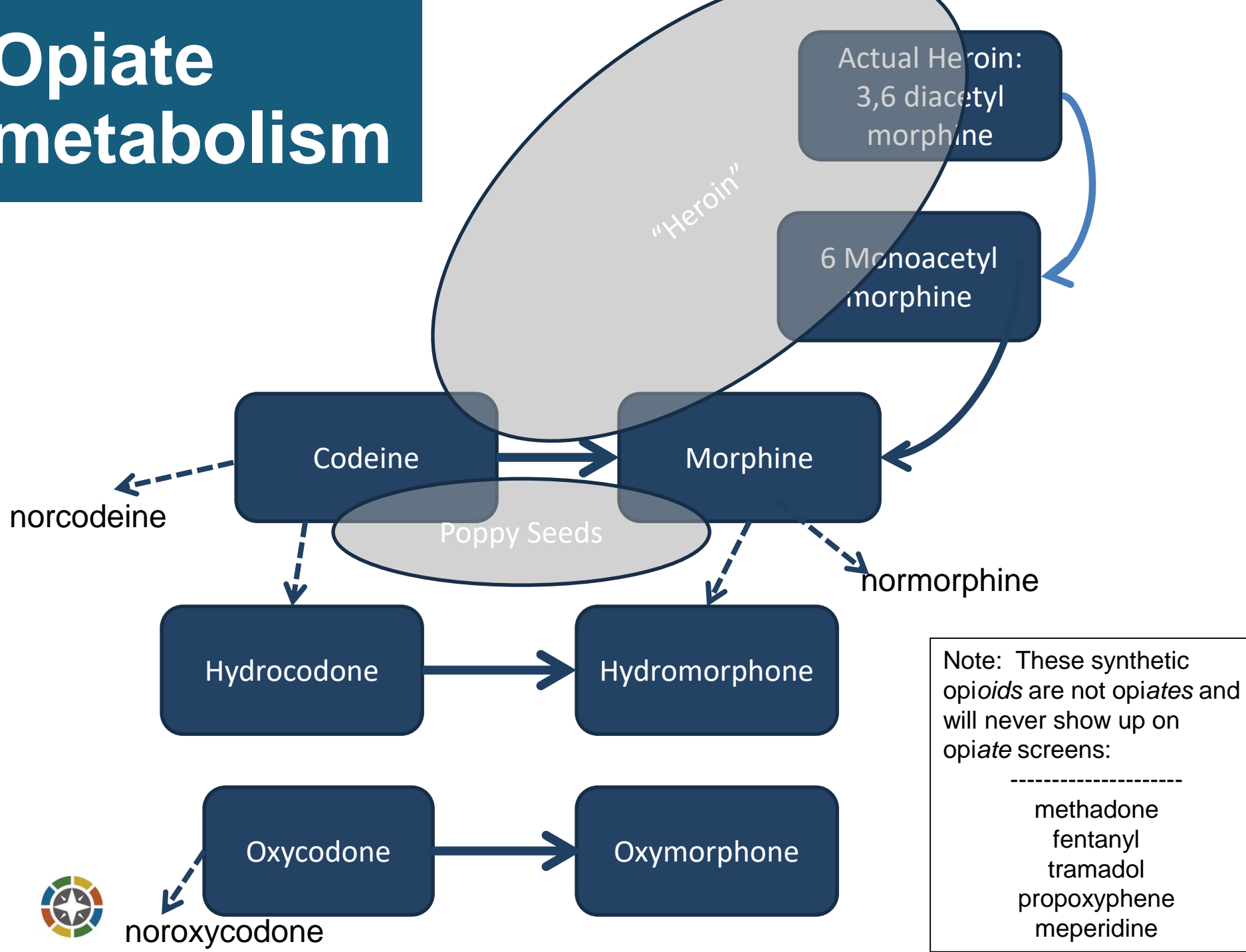


M.A. confirmatory testing (GC/MS)

Drug	Result
Amphetamine	NEG
Methamphetamine	NEG
Barbiturate	Butalbital confirmed
Opiates	
	Oxycodone confirmed
	Oxymorphone confirmed
	Hydromorphone confirmed
	Morphine confirmed
	Mono-acetyl morphine confirmed



Opiate metabolism



Note: These synthetic opioids are not opiates and will never show up on opiate screens:

- methadone
- fentanyl
- tramadol
- propoxyphene
- meperidine



Urine drug screen: Responding to unexpected results.

- ✧ Have a range of responses.
- ✧ “Fire the patient” shouldn’t be one of them.
- ✧ Dangerous combinations (e.g., opioid + bz, multiple opioids) might be reasons to d/c meds.
- ✧ Negative results for expected drug (if test sufficiently *sensitive*) – consider diversion.
- ✧ First time, low risk situation – clarify expectations and increase frequency of testing.
- ✧ Evaluate for evidence of Substance Use Disorder and treat / refer for treatment.



CDC Recommendation #11

Avoid concurrent opioid and benzodiazepine prescribing.

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

Recommendation: **A**
Evidence: **3**

Benzodiazepines

- ✧ Three studies of fatal opioid overdoses found evidence of concurrent benzodiazepine use in 31%–61% of decedents.
- ✧ Little evidence to support chronic benzodiazepine use.
- ✧ Rebound insomnia / anxiety with missed doses, reduction, cessation.
- ✧ Potential for serious withdrawal (seizures, delirium tremens) with abrupt cessation from high doses.
- ✧ Taper by 25% every 1-2 weeks (slower=better tolerated)
- ✧ Consider alternatives for anxiety: SSRIs, SNRIs, buspirone, cognitive-behavioral therapies.



CDC Recommendation #12

Offer treatment for opioid use disorder.

Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

Recommendation: **A**
Evidence: **2**

Opioid Use Disorder

DSM-5 criteria

Impairing/distressing/problematic pattern of opioid use, ≥ 2 in a 12 mo period:

1. Opioid taken in larger amounts or over a longer period than intended.
2. Persistent desire or unsuccessful efforts to cut down or control opioid use.
3. Great deal of time spent obtaining, using, or recovering from use of opioids.
4. Craving or strong desire to use opioids
5. Recurrent use resulting in a failure to fulfill major role obligations.
6. Continue use despite having persistent/recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important activities given up or reduced because of use.
8. Recurrent opioid use in situations in which it is physically hazardous
9. Continued use despite knowledge of having a persistent/recurrent physical /psychological problem likely to have been caused or exacerbated by opioids.
10. Tolerance*
(*Tolerance/withdrawal alone insufficient to diagnose in prescribed use.)
11. Withdrawal*

2-3 = "mild" = "abuse"	} "dependence" / "addiction"
4-5 = "moderate"	
≥ 6 = "severe"	



Opioid Use Disorder: Red Flags

- ✧ Undisclosed prescribers on PMP.
- ✧ Nonprescribed opioids on UDS.
- ✧ Repeated requests for early fills, episodes of “lost” medication.
- ✧ Unsanctioned dose increases, unsanctioned routes of administration.
- ✧ Using med for other than prescribed indication (other pain symptoms, sleep, anxiety).
- ✧ Evidence of intoxication or withdrawal.
- ✧ Concern raised by family or others.



Opioid Use Disorder: Important Things to Remember

- ✧ It's a brain disease
 - Exposure to opioids is necessary but not sufficient to cause it
 - Genetic predisposition
- ✧ It's a chronic condition
 - Changes in brain function persist long after acute withdrawal subsides
 - Relapse rates are high
- ✧ Medication is key to treatment

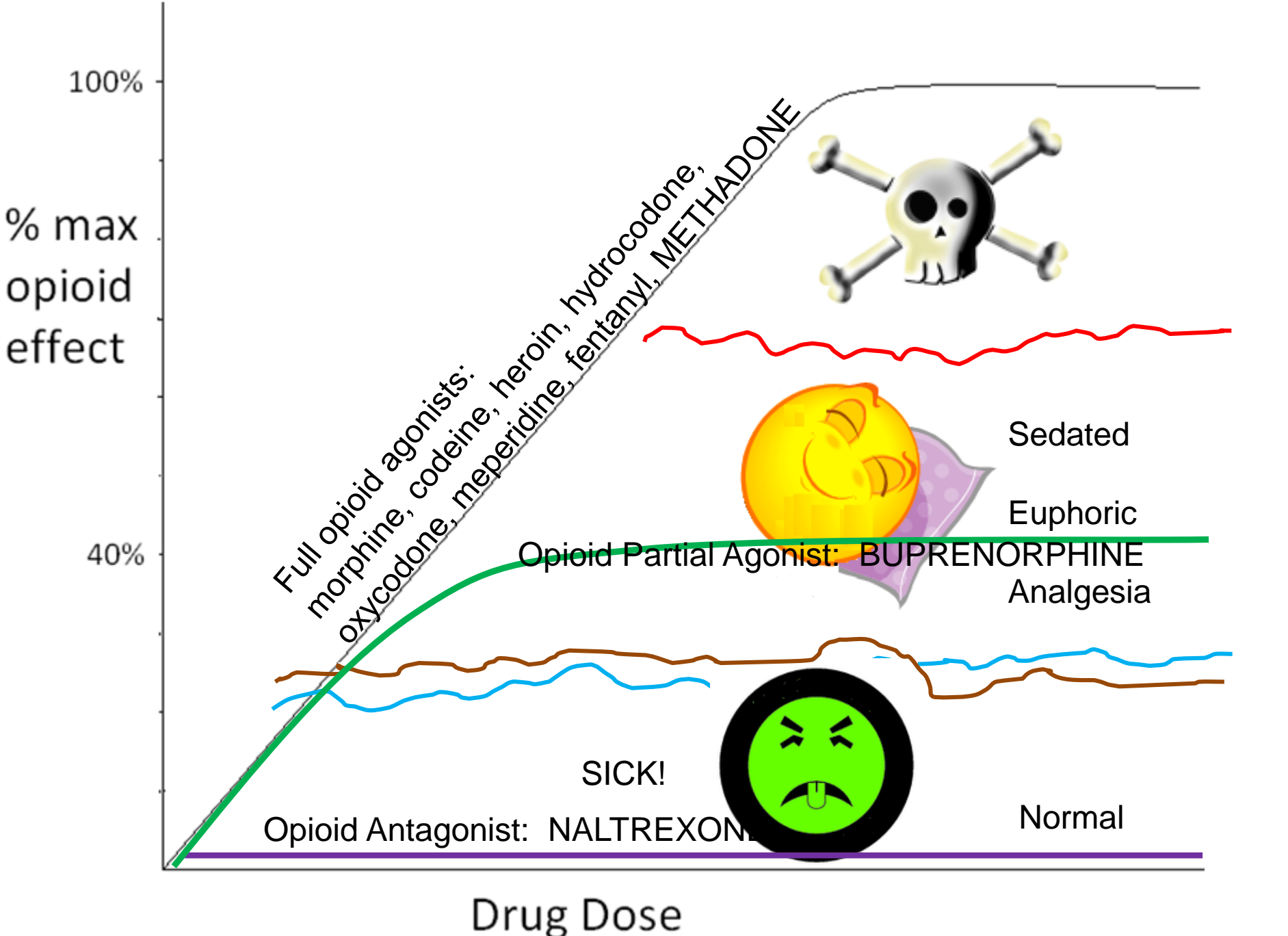


Pharmacotherapy for opioid use disorders: general principle

- ✧ High occupancy of opiate receptors with medications with high receptor affinity removes incentive for using opioids of abuse.

Medication	μ -opiate receptor effect	Prevent opioid reward effects	Prevent opioid withdrawal effects
METHADONE	AGONIST	+	++++
BUPRENORPHINE	PARTIAL AGONIST	+++	+++
NALTREXONE	ANTAGONIST	+++	0





% max opioid effect

100%

40%

Drug Dose

Full opioid agonists:
morphine, codeine, heroin, hydrocodone,
oxycodone, meperidine, fentanyl, METHADONE



Opioid Partial Agonist: BUPRENORPHINE

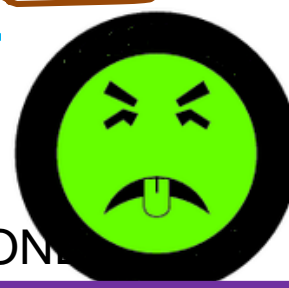


Sedated

Euphoric

Analgesia

SICK!



Opioid Antagonist: NALTREXON

Normal

0%

✧ Methadone

- Full agonist – higher overdose and diversion/abuse potential
- Control effect by controlling access to dose; can only be used to treat opioid use disorder in federally qualified Opioid Treatment Programs that can do observed dosing ≥ 6 days per wk

✧ Naltrexone

- Antagonist
- Does not address withdrawal / opioid deficit
- Does not have any role in pain management
- No special requirements for use

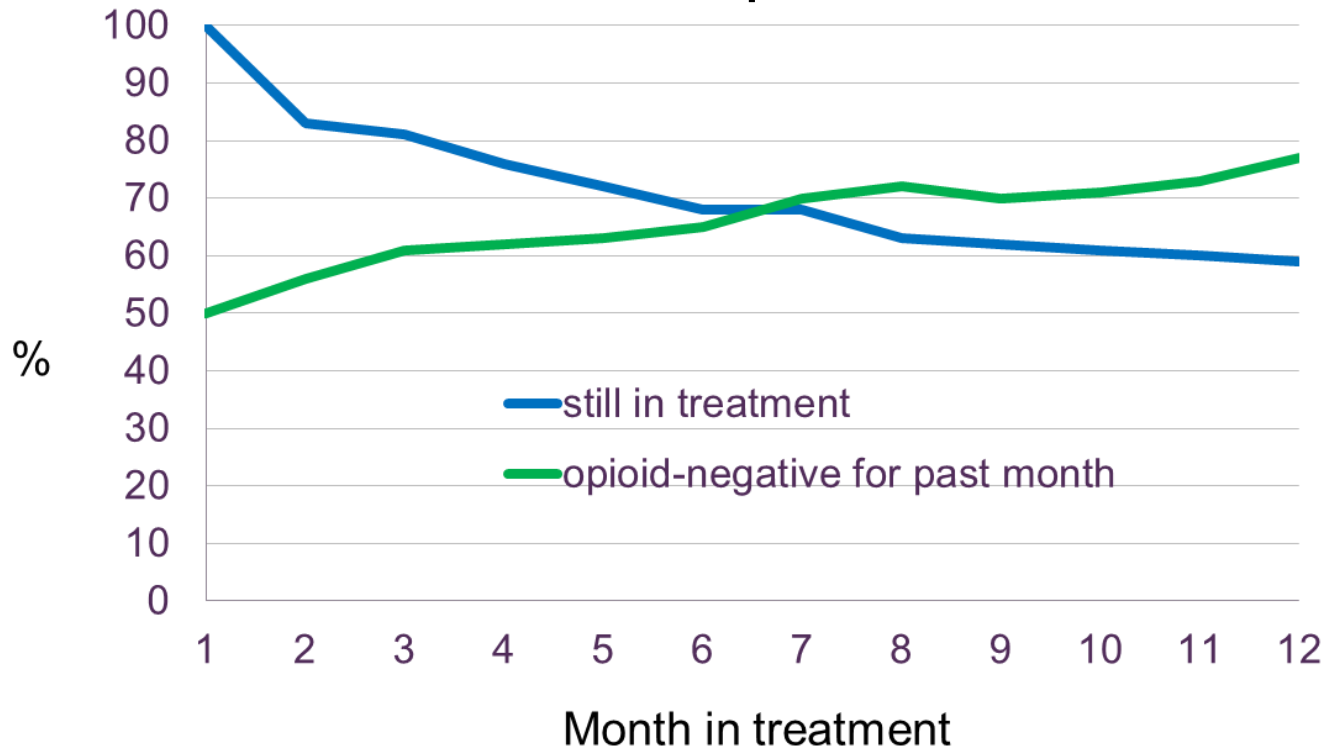
✧ Buprenorphine

- Partial agonist; lower risk
- Addresses deficit state
- Requires waiver to prescribe



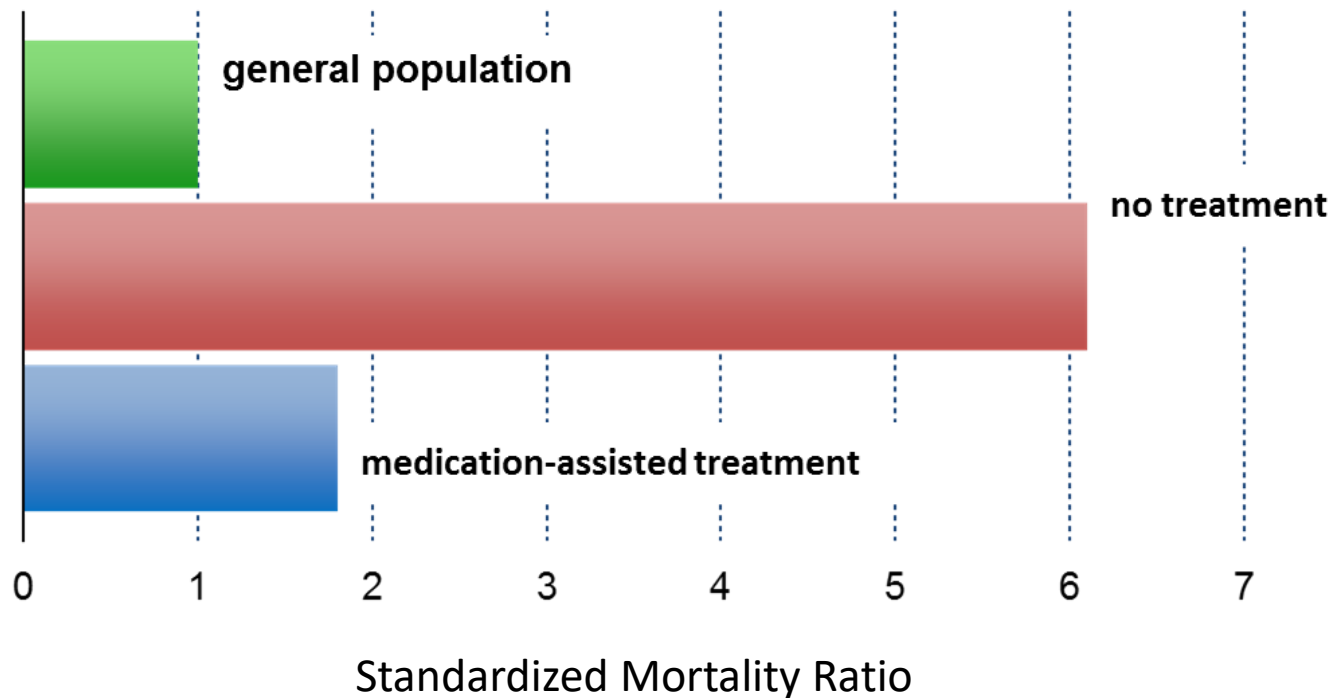
Treatment Retention and Decreased Illicit Opioid Use on MAT

- ✧ Buprenorphine promotes retention, and those who remain in treatment become more likely over time to abstain from other opioids



Benefits of MAT: Decreased Mortality

Death rates:



Become a prescriber

<https://pcssnow.org/>



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Discover the rewards
of treating patients with
Opioid Use Disorders

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Question Break!

Recommendations 7.5 - 12





Moving Forward

Implementation

- ✧ Individual provider implementation
- ✧ Systems of care
 - Healthcare is a team sport!
 - Involve leadership.
 - Policies to improve consistency between prescribers.
 - Interdisciplinary implementation
 - Lab, pharmacy, nursing, medical assistants
 - Pain specialty care (physician, PT, OT, psychotherapy)
 - Complementary/alternative (chiropractic, acupuncture)
 - Addiction care (MAT providers, addiction treatment programs)



Exhibit 2: Five Steps for Implementing an Opioid QI Effort in a Healthcare System or Practice

Step 1: Obtain Leadership Support and Identify a Champion(s)

- Obtain leadership support as a critical first step
- Identify a champion(s) to drive the change process
- Form a change team (if appropriate) or at least engage key staff
- Obtain needed resources and determine readiness

Step 2: Assess Current Approach to Opioids and Identify Areas for Improvement

- Assess current policies and practices
- Complete the self-assessment questionnaire
- Collect data on your patient population and opioid therapy
- Determine access to specialists and other resources
- Identify areas to improve upon

Step 3: Select and Prioritize Guideline Recommendations to Implement

- Determine which Guideline recommendations to implement
- Prioritize what will be implemented

Step 4: Define System Goals

- Set measurable goals

Step 5: Develop a Plan, Implement, and Monitor Progress

- Develop a plan for implementing selected Guideline recommendations
- Implement the changes
- Monitor progress using QI measures and other data



NEW OPIOID RX MEASURES

% new opioid prescriptions:

1. ...that are for an immediate-release opioid.
2. ...with documentation that PMP was checked prior to prescribing.
3. ...urine drug test performed prior to prescribing.
4. ...with follow-up visit \leq 4 wks of starting.
5. ... \leq 3 days' supply if for acute pain

OPIOID USE DISORDER (OUD) MEASURE

% patients with OUD:

16. ...referred to or prescribed medication-assisted treatment (MAT).

LONG TERM OPIOID THERAPY (LTOT) MEASURES

%LTOT patients:

6. ...taking \geq 50 MME / day
7. ...taking \geq 90 MME / day
8. ...with benzodiazepine Rx.
9. ...who had a follow-up visit at least quarterly.
10. ...who had at least quarterly pain and functional assessments.
11. ...who had documentation that PMP was checked \geq quarterly.
12. ...counseled on risks and benefits of opioids \geq annually.
13. ...urine drug test \geq annually.
14. ...referral or visit for nonpharmacologic tx for pain.
15. ...counseled on and prescribed naloxone.



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