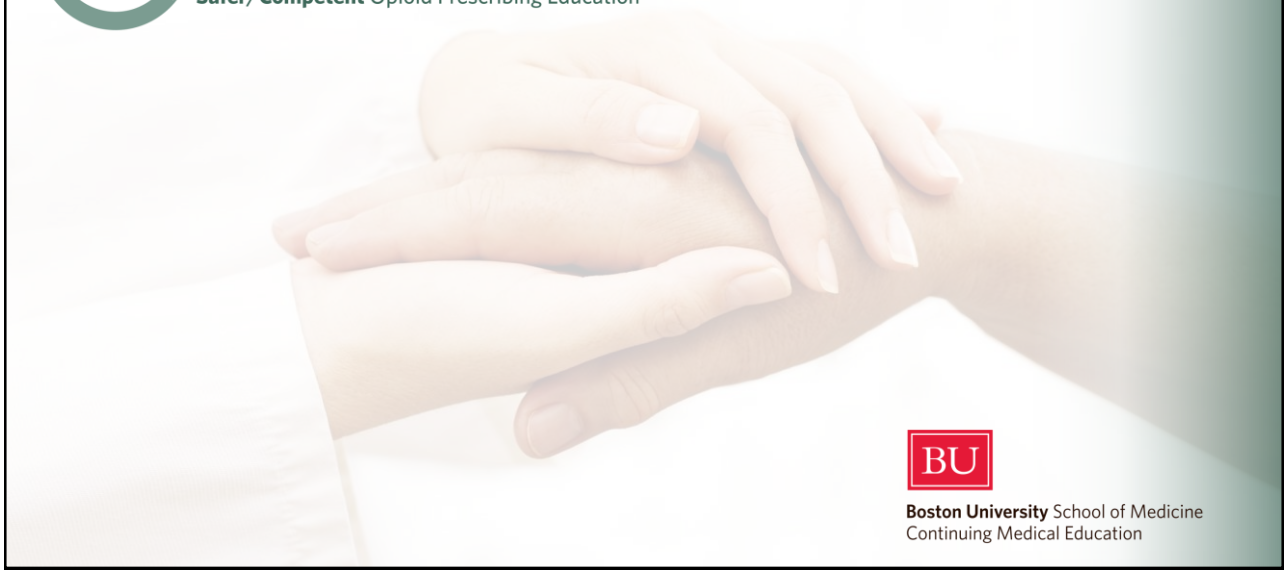
SCOPE of Pain

Safer/Competent Opioid Prescribing Education



BU

Boston University School of Medicine
Continuing Medical Education

How the Program Works

SCOPE of Pain
www.scopeofpain.org

- Web-based program
- Two parts, with a post-test after each part
- Certificate available upon completion of post-tests and evaluation, at the end of both parts

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Faculty

Daniel P. Alford, MD, MPH (Course Director)
Professor of Medicine
Associate Dean, Continuing Medical Education
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Boston University School of Medicine|Boston Medical Center
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Boston, Massachusetts

Faculty members have no relevant financial relationships to disclose.

These presentations include discussion of the off-label use of sublingual buprenorphine to treat pain. Sublingual buprenorphine has been FDA approved for addiction treatment but not pain treatment. This presentation does include discussion of the off-label use of clonidine and tizanidine to treat opioid withdrawal symptoms. Clonidine and tizanidine are not FDA approved for this use. This presentation does include discussion of the off-label use of gabapentin for chronic pain (other than post-herpetic neuralgia).

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Partners and Supporters

National Partners

- Council of Medical Specialty Societies
- Federation of State Medical Boards

Opioid REMS

- Content dictated by FDA
  "Blueprint for Prescriber Education"
- FDA requires opioid analgesic manufacturers to pool funds for CME/CE-certified education offered by approved providers

Grant Support

This activity is supported by an independent educational grant from the Opioid Analgesic REMS Program Companies.
See https://ce.opioidanalgesicrems.com/RpcCEUI/rems/pdf/resources/List_of_RPC_Companies.pdf for listing of REMS Program Companies. This activity is intended to be fully compliant with the Opioid Analgesic REMS education requirements issued by the US Food and Drug Administration.

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About the Program

Through the case presented in this program, you will learn:

- **How to…**
  - Optimize safety when prescribing opioids for acute pain
  - Determine when opioid analgesics are indicated for chronic pain
  - Assess pain and prescription opioid misuse risk
  - Educate patients about opioid risks and realistic benefits
  - Monitor patients on opioid therapy for benefits and harms
  - Assess and manage worrisome opioid-taking behaviors
  - Safely taper long-term opioid therapy
  - Identify and manage patients with an opioid use disorder

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Purpose of the Training

SCOPE of Pain
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- Covers strategies for safer use of opioids for managing acute and chronic pain by reviewing **best practices** and **CDC guideline recommendations**, and sharing **clinical pearls**

- Does NOT cover palliative care or end of life pain management

Alford DP, et al. *Pain Med*. 2016

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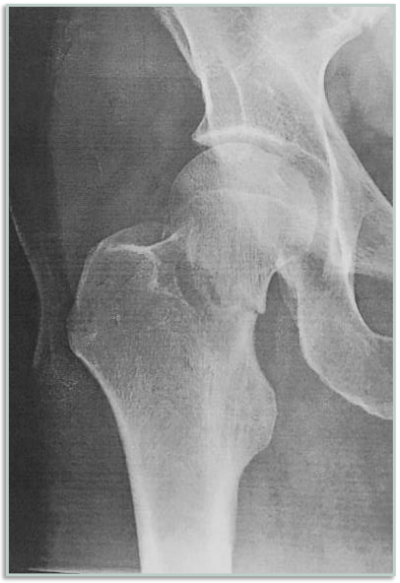
SCOPE of Pain
www.scopeofpain.org

Part 1:

Understanding Pain and Opioids

CASE STUDY
Kathy James

- 32 year old female with no past medical history
- Brought in by ambulance after a motor vehicle crash resulting in a displaced right femoral neck fracture
- Undergoes successful internal fixation
- Perioperative pain managed with nerve blocks and parenteral hydromorphone (up to 12 mg/day)



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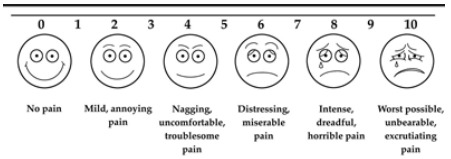
Assessing Acute Pain

"Many factors influence self-reported pain ratings including gender, social support, provider characteristics, trust." ~ *Barry S. Oken, MD, PhD*

- Intensity
- Location
- Onset
- Duration
- Radiation
- Exacerbation
- Alleviation

Pain intensity scales include:

- **Visual Analogue Scales (VAS), and**



- **Numerical Rating Scales (NRS) 10 point scale:**
  - Mild (1-3)
  - Moderate (4-6)
  - Severe (7-10)

Oken BS. *Brain*. 2008
Breivik H, et al. *Br J Anaesth*. 2008
Mason ST, et al. *Handbook of Pain Assessment*. 2011

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Risk Factors for Chronic Postsurgical Pain

Alterations in:
- Expression of neurotransmitters, receptors, and ion channels
- Structure, connectivity, and survival of neurons

Patient-related disposition
- Younger age
- Female gender
- Pain syndromes

Operative variables
- Ischemic pain
- Mastalgia
- Preop opioid use

PERSISTENT PAIN

Preoperative psychosocial factors
- Anxiety
- Depression
- Catastrophization

Postoperative pain
- Uncontrolled high intensity pain
- Longer duration of post pain

Intraoperative variables
- Surgical procedure
- Surgical technique
- Nerve ligation/injury
- Anesthetic modality

Voscopoulos C, Lema M. *Br J Anaesth*. 2010
Pozek JP, et al. *Med Clin North Am*. 2016

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Predicting Risk of Progression to Chronic Pain

Example: STarT Back Screening Tool

Thinking about the **last 2 weeks** tick your response to the following questions:

		Disagree 0	Agree 1
1	My back pain has **spread down my leg(s)** at some time in the last 2 weeks	☐	☐
2	I have had pain in the **shoulder** or **neck** at some time in the last 2 weeks	☐	☐
3	I have only **walked short distances** because of my back pain	☐	☐
4	In the last 2 weeks, I have **dressed more slowly** than usual because of back pain	☐	☐
5	It's not really safe for a person with a condition like mine to be physically active	☐	☐
6	**Worrying thoughts** have been going through my mind a lot of the time	☐	☐
7	I feel that **my back pain is terrible** and **it's never going to get any better**	☐	☐
8	In general I have **not enjoyed** all the things I used to enjoy	☐	☐

9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

Not at all	Slightly	Moderately	Very much	Extremely
☐ 0	☐ 0	☐ 0	☐ 1	☐ 1

Helps identify modifiable risk factors (biomedical, psychological and social) for chronic back pain disability

Total score stratifies patients into low, medium or high risk

Hill JC, et al. *Arthritis Rheum*. 2008

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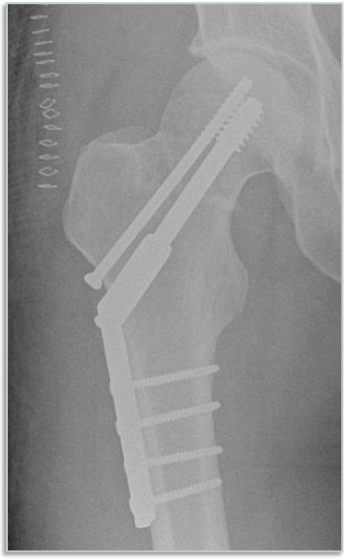
32 year old female

CASE STUDY
Kathy James

? What is the correct amount of opioid to discharge this patient on?

- Discharged home with visiting nurse and physical therapy services and orthopedic follow-up in 1 week
- Pain regimen is oxycodone 5 mg 1-2 tablets every 4-6 hour prn pain #120 tablets



Opioid Over-Prescribing After Surgery

Surgery	Over-prescription	Reference
Thoracic	**71%** taking **half or less**	Bartels et al. *Plos One*. 2016
C-section	**83%** taking **half or less**	Bartels et al. *Plos One*. 2016
Upper extremity	**77%** taking **half or less**	Rodgers et al. *J. Hand Surg*. 2012
Upper extremity	**84%** had **leftover pills**	Kim et al. *JSBS*. 2016
Dermatologic	**86%** had **leftover pills**	Harris et al. *JAMA Derm*. 2013
General surgery	**71% of pills not taken**	Hill et al. *Annals Surgery*. 2016
Urologic	**42% of pills not taken**	Bates et al. *J. Urology*. 2011

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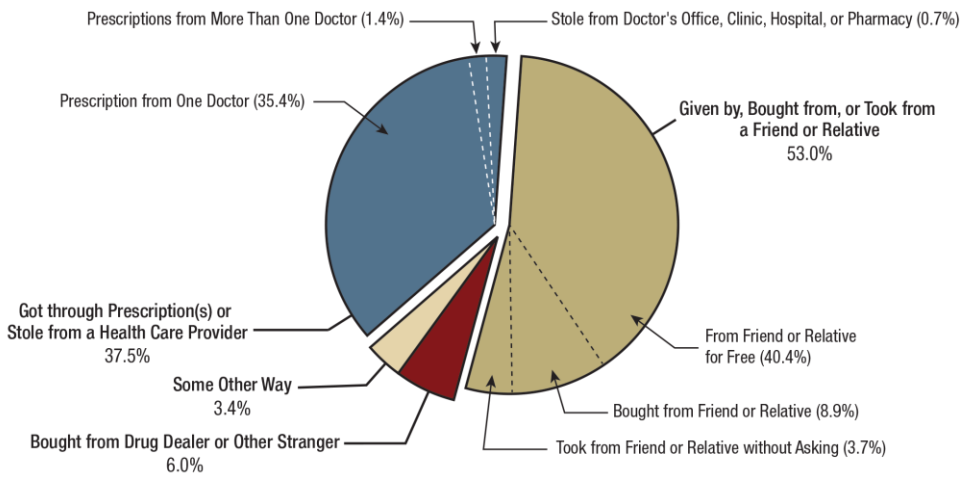
Source of Prescription Opioids Misused

11.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year



SAMHSA. *Results from the 2016 National Survey on Drug Use and Health*. 2017

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Risk Factors for Acute to Chronic Opioid Use

Risk factors associated with long-term opioid use	Male (OR 1.34)
	Older than 50 years old (OR 1.74)
	Drug use disorder (OR 3.15)
	Alcohol use disorder (OR 1.83)
	Benzodiazepine use (OR 1.82)
	Antidepressant use (OR 1.65)
	Depression (OR 1.15)

3-5%
of opioid-naïve patients
receiving an opioid
became long-term opioid users

Deyo RA, et al. *J Gen Intern Med*. 2017
Clarke H, et al. *BMJ.* 2014
Sun EC, et al. *JAMA Intern Med*. 2016

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Oral Analgesics for Postoperative Pain

Analgesic(s)	Dose (mg)	NNT vs Placebo ≥ 50% maximum pain relief over 4-6 hours
SINGLE AGENTS:		
Ibuprofen	600	**2.7**
Naproxen	500	**2.7**
Celecoxib	400	**2.6**
Acetaminophen (APAP)	1000	**3.6**
Oxycodone	15	**4.6**
Codeine	60	**12.0**
Gabapentin	250	**11.0**
COMBINATIONS:		
Ibuprofen + APAP	400+1000	**1.5**
Ibuprofen + oxycodone	400+5	**2.3**
APAP + oxycodone	325+5	**5.4**
APAP + codeine	300+30	**6.9**

~50,000 participants

~460 high-quality studies
(mostly dental extractions)

Moore, R. Andrew, et al. *The Cochrane Library.* 2015

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Post-Op Pain Management Guideline

- Offer multimodal analgesia
  (strong recommendation, high-quality evidence)
- Most severe post-op pain diminishes rapidly in the first few days, but…need for an individualized approach

CDC Recommendation 6:

Short durations of opioids for acute pain.
<3 days often sufficient
>7 days rarely needed

Dowell D, et al. *MMWR.* 2016

- Insufficient evidence to guide post-op opioid taper
  - ~20–25% decrease every 1-2 days can be tolerated when pain is improving
- Some minor surgeries, appropriate to discharge patients with acetaminophen and/or NSAIDs or a very limited opioid supply before the transition to acetaminophen and/or NSAIDs

Chou R, et al. *J Pain.* 2016
Elia N, et al. *Anesthesiology.* 2005
McDaid C, et al. *Health Technol Assess.* 2010
Kessler ER, et al. *Pharmacotherapy.* 2013

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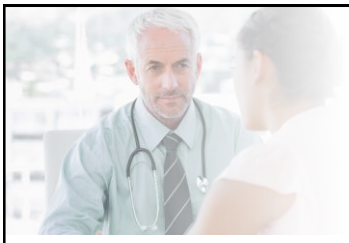
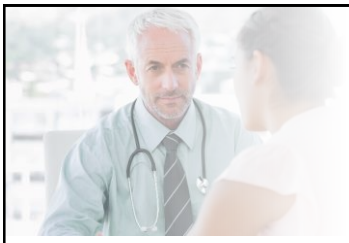


CASE STUDY
Kathy James

40 year old female (8 years later)

- Presents to establish primary care after her previous primary care provider retired
- **"I ran out of my pain meds today and need a new prescription."**
- Past medical history:
  - Type 2 diabetes mellitus x 6 yrs (A1C 7.0%)
  - Painful diabetic neuropathy x 2 yrs
  - Chronic right hip pain since her hip fracture 8 yrs ago
  - Obesity (BMI 32)
  - Tobacco use disorder



CASE STUDY
Kathy James

40 year old female

Current Medications:
Metformin 1000 mg 2x/day

Current Pain Medications:
Oxycodone 10 mg 4x/day *(60 MME*)*
Gabapentin 300 mg 3x/day

Previous Pain Medications:

NSAIDs (ibuprofen, naproxen)	*Inadequate pain relief and GI upset*
Acetaminophen	*Inadequate pain relief*
Tricyclic antidepressants (TCA) (amitriptyline)	*Inadequate pain relief and dry mouth*
Serotonin-norepinephrine reuptake inhibitor (SNRI) (venlafaxine)	*Unable to tolerate due to nausea and dizziness*
Tramadol	*Inadequate pain relief*
Acetaminophen with codeine	*Inadequate pain relief and nausea*

**Morphine Mg Equivalents*

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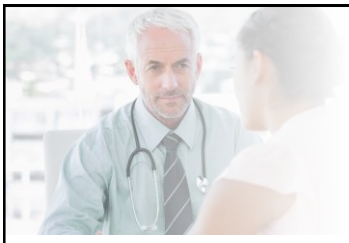

CASE STUDY
Kathy James

40 year old female

Social History:
Receptionist law office 20 hours/week
Married husband manages hardware store
Children 6, 8 and 12 years of age

Substance Use History:
Alcohol use 1-2 glasses of wine on some weekends and holidays
Tried cannabis in high school
No recent history of illicit drug use
Smokes tobacco 1 pack per day for the past 20 years

Family History:
Mother died from complications of alcoholic cirrhosis

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CASE STUDY
Kathy James

How will you respond to her request for a new oxycodone prescription on this first visit?

How will you assess her chronic pain?

40 year old female

- Leading up to this visit she has been spacing out her oxycodone to avoid running out
  - Past 2 weeks taking oxycodone 10 mg every 12 hours
  - Took last oxycodone this morning
- Best pain relief with oxycodone 10 mg every 6 hours
- Current pain is more severe due to less frequent oxycodone
  - "My pain pills don't last 12 hours. I have been really suffering lately. It's almost impossible to go to work and take care of my kids. I tried to get an earlier appointment but nobody is taking new patients these days."
- Presents with medical records from previous PCP

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Acute versus Chronic Pain

Acute Pain *Live sustaining symptom*	Chronic Pain *Can be a disease in itself*
• **Adaptive** by eliciting motivation to minimize harm and allow healing	• **Maladaptive**, pathologic, disorder of the somatosensory pain signaling pathways influenced by genetic and epigenetic factors – **Nociceptive** pain: somatic or visceral pain caused by ongoing activation of nociceptors to a noxious stimulus (e.g., injury, disease, inflammation) – **Neuropathic** pain: nerve injury or impairment causing aberrant signal processing in the peripheral or central nervous system • **Associated with higher risk of fatal and nonfatal suicide attempts***

* Petrosky E, et al. *Ann Intern Med.* 2018
Ilgen MA, et al. *JAMA Psychiatry*. 2013
Tang NK et al. *Psychol Med*. 2006
Dzau VJ, Pizzo PA. *JAMA.* 2014
Walk D, Poliak-Tunis M. *Med Clin N Am*. 2016
Argoff CE, et al. *Pain Med*. 2009

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Barriers to Adequate Pain Care

- Negative attitudes and disparities in pain care
- Inadequate training in managing patients with chronic pain
- Lack of decision support for chronic pain management
- Financial misalignment favoring use of medications
- Lack of access to pain specialists and comprehensive pain care
- Over-burdened primary care providers with many competing priorities

Mezei L et al. *J Pain.* 2011
Loeser JD, Schatman ME. *Postgrad Med.* 2017
Institute of Medicine. *Relieving Pain in America*. 2011

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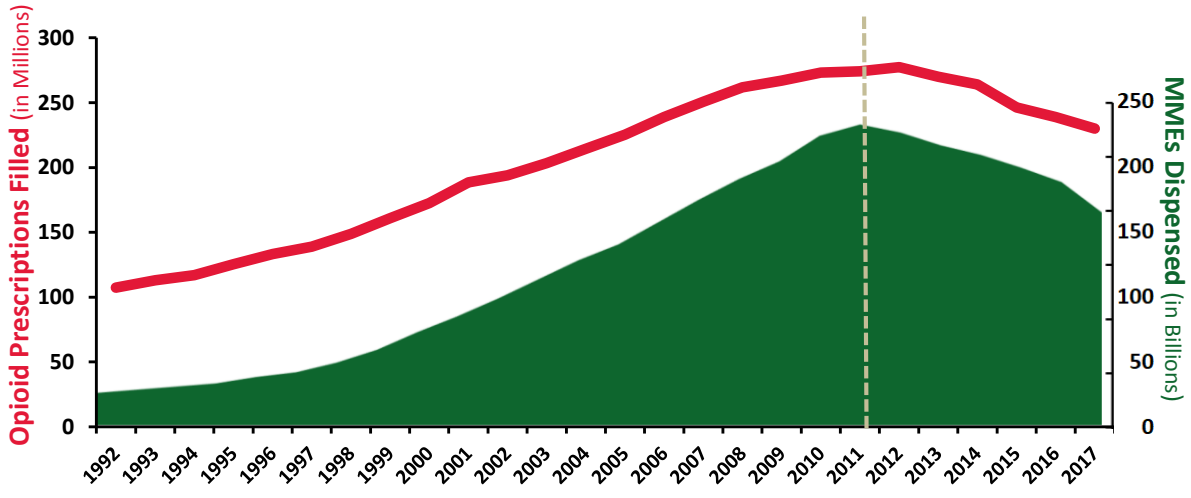
Opioid Prescribing Trends



1. Pezella EJ, et al. *J Pain Res*. 2017
2. Graph: IQVIA "Smart Launch Edition" – Dec 2017; Report: Medicine Use and Spending in the U.S.

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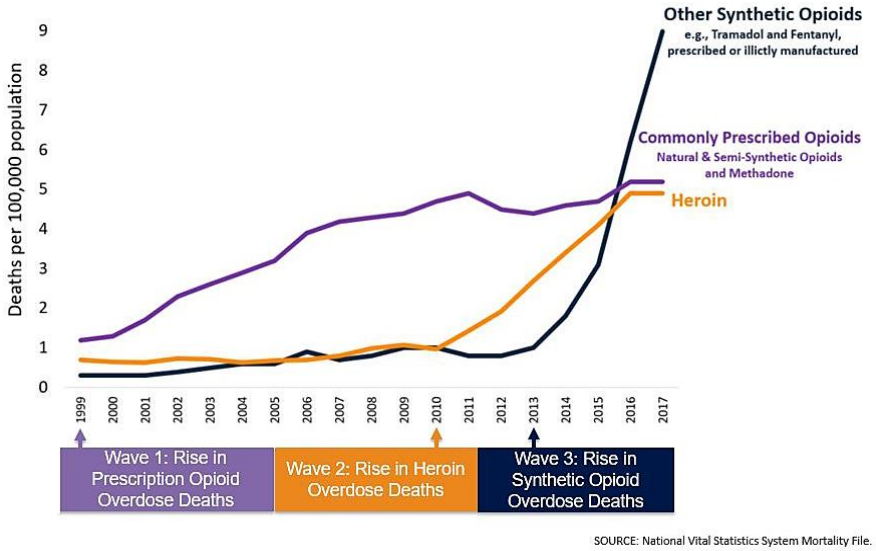
Trends in Opioid Overdose Deaths



https://www.cdc.gov/drugoverdose/epidemic/index.html

Prescription opioid misuse prevention alone will have only a modest effect on lowering opioid overdose deaths…a multipronged approach is needed to dramatically change the course of the epidemic.

Chen Q, et al. *JAMA Network Open*. 2019

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Opioids and Chronic Pain in Perspective

- The efficacy of long-term opioid therapy for chronic pain has been **inadequately studied**
- Opioid prescribing should be more judicious
- Opioid misuse can be fatal (overdose, opioid use disorder)
- Opioids for chronic pain…
  - Are indicated after alternative safer options are inadequate
  - Are only one tool of a multimodal approach for managing severe chronic pain

CDC Recommendation 1:

Do not use opioids as first-line therapy.
If used, combine w/ other therapies.

Dowell D, et al. *MMWR.* 2016.

Chou R et al. *Ann Intern Med.* 2015
Dowell D et al. *JAMA.* 2016
Manchikanti L, et al. *Pain Physician.* 2011
Reuben DB, et al. *Ann Intern Med.* 2015
Volkow ND, McLellan T. *N Engl J Med.* 2016

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Case Study: Kathy James, 40 year old female

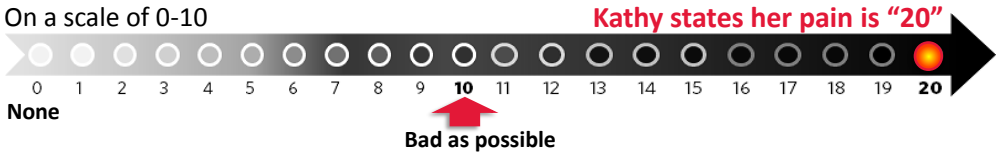
Pain Assessment

Mild-Moderate Right Hip Pain

- Deep, aching pain radiating to the right groin and stiffness with activity and relieved with rest
- Pain exacerbated when rising from a seated position

Severe Bilateral Foot Pain

- Burning, numbness and tingling
- Pain worse at night, trouble sleeping because of pain



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Building Trust: Patient Issues

Patients may assume that you do not believe the severity of their pain complaints

Demonstrated by
exaggerating pain scores
and
exaggerating functional limitations

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Building Trust: Provider Issues

After you complete a thorough pain history, focused physical exam, and appropriate diagnostic testing…

- **Show empathy for patient experience**
- **Validate that you believe pain is real**

Believing the severity of a patient's pain complaint
does not mean opioids are indicated

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Chronic Pain Assessment

Unidimensional Scales

- (e.g. Numeric rating) are of limited value for assessing chronic pain

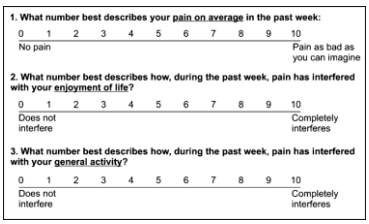
Herr K, et al. *Clin J Pain*. 1998

Multidimensional Instruments

- McGill Pain Questionnaire
- Graded Chronic Pain Scale
- Brief Pain Inventory

Impractical for routine use in most primary care settings

Pain, Enjoyment, General Activity (PEG) Scale



Breivik H, et al. *Br J Anaesth*. 2008
Krebs EE, et al. *J Gen Intern Med*. 2009
Salaffi F, et al. *Best Pract Res Clin Rheumatol.* 2015

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Case Study: Kathy James: 40 year old female

PEG Scale Assessment

Pain on average?

0 1 2 3 4 5 6 7 8 9 **10**

No pain — As bad as you can imagine

Pain interfered with **enjoyment of life?**

0 1 2 3 4 5 6 7 8 **9** 10

Does not interfere — Completely interferes

Pain interfered with **general activity?**

0 1 2 3 4 5 6 7 8 **9** 10

Does not interfere — Completely interferes

Krebs EE, et al. *J Gen Intern Med*. 2009

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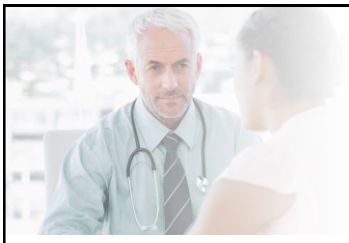

CASE STUDY
Kathy James

Will you prescribe opioids for this patient's chronic pain?

40 year old female

Physical

- No acute distress
- Normal vitals, weight 220 lbs (BMI 32)
- Normal cardiopulmonary exam
- Normal musculoskeletal exam, except right hip with decreased internal rotation with hip flexed
- Neurologic exam normal except absent Achilles tendon reflex bilaterally
- Diabetic foot exam:
  - No lesions/ulcerations
  - Normal pulses
  - Loss of protective sensation (LOPS) by vibration (tuning fork) and pressure (monofilament) tests

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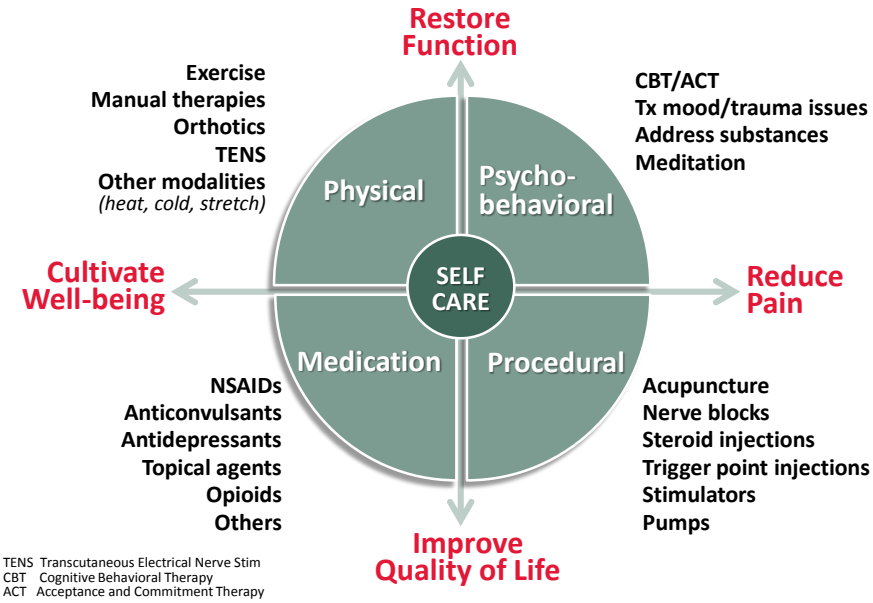
Multidimensional Care for Chronic Pain



TENS Transcutaneous Electrical Nerve Stim
CBT Cognitive Behavioral Therapy
ACT Acceptance and Commitment Therapy

Studies on all pharmacologic and nonpharmacologic treatments for chronic pain are ≤ 12 m, vast majority are ≤ 12 w

Tayeb BO, et al. *Pain Med.* 2016

Multimodal approaches are more cost-effective than single modality options

Flor H, et al. *Pain* 1992
Roberts AH, et al. *Clin J Pain.* 1993
Patrick LE, et al. *Spine.* 2004
Kamper SJ, et al. *Cochrane Review.* 2014

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Non-Opioid Pharmacotherapies

Non-steroidal Anti-inflammatory Drugs (NSAIDs)

- Nonselective and COX-2 specific (celecoxib)
- Aspirin/Salicylates
- Anti-inflammatory, analgesic, antipyretic

Acetaminophen

- Analgesic, antipyretic

General Considerations

- Ceiling analgesic effects
- No known analgesic tolerance
- Additive role
- Side effects common at high doses and in certain patient populations

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Non-Opioid Pharmacotherapies

Adjuvant Analgesics or Co-Analgesics

- Primary indication other than pain
- Analgesic in selected circumstances
  - **Antidepressants** (TCAs, SNRIs)
  - **Anticonvulsants** (gabapentinoids, carbamazepine)
  - **Antispasmodics/muscle relaxants**
  - **Local anesthetics** (lidocaine)
- Misuse and addiction potential with:
  - Gabapentinoids[1,2] (gabapentin, pregabalin)
  - Muscle relaxants[2] (carisoprodol→meprobamate, cyclobenzaprine)

1. Smith RV, et al. *Addiction*. 2016
2. Hill J, Alford DP. *Semin Neurol.* 2018

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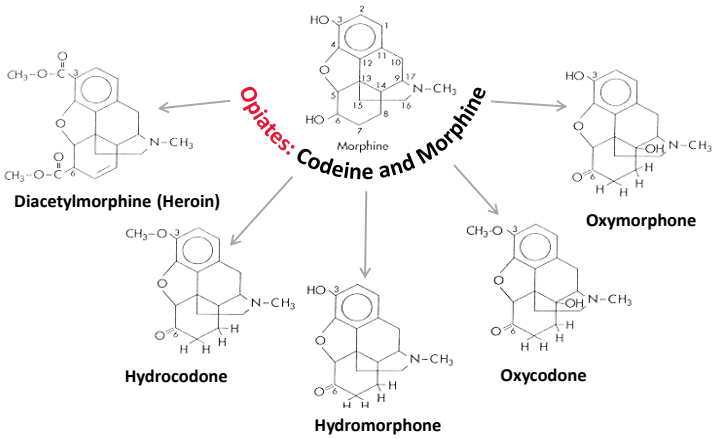
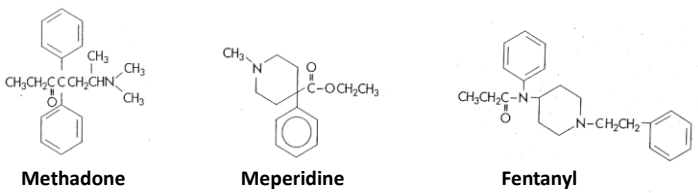
Opioids

Natural (Opiates) and Semisynthetic



Synthetic



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Opioid Analgesics

- Turn on descending inhibitory systems
- Prevent ascending transmission of pain signal
- Inhibit terminals of C-fibers in spinal cord
- Inhibit activation of peripheral nociceptors
- Vary by response (not all patients respond to the same opioid in the same way)
  - >3,000 polymorphisms in human MOR gene
  - Single nucleotide polymorphisms (SNPs) identified that affect opioid metabolism, transport across the blood brain barrier, and activity at receptors and ion channels
- **Activate the reward pathway**

McCleane G, Smith HS. *Med Clin N Am.* 2007
Smith HS. *Pain Physician*. 2008
Ren Z et al. *Pain Physician*. 2015

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Opioid Tolerance and Physical Dependence

Both tolerance and physical dependence are physiological adaptations to chronic opioid exposure

Tolerance:

- Increased dosage needed to produce specific effect
  - Develops readily for CNS and respiratory depression
  - Less so for constipation
  - **Unclear about analgesia**

Physical Dependence:

- Signs and symptoms of withdrawal by abrupt opioid cessation, rapid dose reduction or exposure to an opioid antagonist (naloxone)

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Opioid Efficacy for Chronic Pain

Meta-analyses (3-6 m follow-up)

- **Opioids vs placebo**
  Opioids with statistically significant but small improvements in pain[1,2] and physical functioning.[2]
  (high quality studies)
- **Opioids vs nonopioids**
  Both with similar benefits[2]
  (low-mod quality studies)

RCT found opioids **not superior** to nonopioids for improving musculoskeletal pain-related function over 12 months

[limitation: only 5% of potential patients enrolled and randomized (240/4485)][3]

Two longer term follow-up studies found **44.3%** on chronic opioids for chronic pain had **at least 50% pain relief** [4]

1. Meske DS, et al. *J Pain Res.* 2018
2. Busse JW, et al. *JAMA*. 2018
3. Krebs EE, et al. *JAMA*. 2018
4. Noble M, et al. *Cochrane Systematic Reviews.* 2010

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Opioid Safety and Risks

Allergies: Rare

Immunosuppression

- Animal models, opioid induced immuno-suppression
- Humans with ↑ risk invasive pneumococcal disease* and community acquired pneumonia**

Organ Toxicities

- Suppression of hypothalamic-pituitary-gonadal axis
- >50 mg (MSO_4 equivalents) associated with 2x increase fracture risk***

Adverse Effects

- Nausea, sedation, constipation, urinary retention, sweating
- Pruritus (histamine release)
- **Respiratory depression**

Benyamin R, et al. *Pain Physician*. 2008
*Wiese AD, et al. *Ann Intern Med.* 2018
**Edelman EJ, et al. *JAMA Intern Med.* 2019
***Saunders KW, et al. *J Gen Intern Med*. 2010

Report AE to FDA
1-800-FDA-1088
www.fda.gov

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Rates of Problematic Opioid Use in Chronic Pain

Systematic Review of 38 Studies
(26% primary care, 53% pain clinics)

Misuse rates: **21% - 29%**
([95%CI]: 13%-38%)

- **Misuse:** Opioid use contrary to the directed or prescribed pattern of use, regardless of the presence or absence of harm or adverse effects

Addiction rates: **8% - 12%**
([95% CI]: 3%-17%)

- **Addiction:** Pattern of continued use with experience of, or demonstrated potential for, harm (eg, "impaired control over drug use, compulsive use, continued use despite harm, and craving")

Vowles KE, et al. *Pain.* 2015

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High Dose Opioids

>100 morphine mg equivalents (MME)

- Considered higher dose opioid therapy by different authors[1,2,3]

Higher doses more likely associated with:

- Analgesic tolerance[4]
- Hyperalgesia[5,6]
- Reduced function[7,8]
- Overdose[9-13]
- Immunosuppression[14]

If patient is on high dose opioids…

- Manage as higher risk
- Increase monitoring and support

CDC Recommendation 5:

Prescribe the lowest effective opioid dose.
Use caution with any dose, if possible avoid doses ≥90 MME.
For patients already on ≥90 MME/day, explain overdose risk, offer assist patient taper opioids to safer dosages if patient agrees.

Dowell D, et al. *MMWR.* 2016.

1. Chou R, et al. *J Pain*. 2009
2. Ballantyne JC, Mao J. *N Engl J Med*. 2003
3. Kobus AM, et al. *J Pain*. 2012
4. Huxtable CA, et al. *Anaesth Intensive Care*. 2011
5. Brush DE. *J Med Toxicol*. 2012
6. Lee M, et al. *Pain Physician*. 2011
7. Kidner CL, et al. *J Bone Joint Surg Am*. 2009
8. Townsend CO, et al. *Pain*. 2008
9. Dunn KM, et al. *Ann Intern Med*. 2010
10. Braden JB. Arch Intern Med. 2010
11. Bohnert AS, et al. *JAMA*. 2011
12. Gomes T, et al. *Open Med*. 2011
13. Paulozzi LJ. *Pain Med*. 2012
14. Edelman EJ, et al. *JAMA Int Med*. 2019

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Medication-related Risk Factors: Overdose and Addiction

Medication-related Factors	Risk	
Daily dose >100 MME	Overdose	Addiction
Long-term opioid use (>3 months)	Overdose	Addiction
ER/LA opioid formulation	Overdose	
<2 weeks after starting ER/LA opioid	Overdose	
Combination opioids and benzodiazepines	Overdose	

CDC Recommendation 11:

Avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

Dowell D, et al. *MMWR.* 2016.

Volkow ND, et al. *N Engl J Med.* 2016

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Patient-related Risk Factors: Overdose and Addiction

Patient-related Factors	Risk	
Mental health disorder (e.g. depression, anxiety)	Overdose	Addiction
Substance use disorder (e.g., alcohol, tobacco, illicit and prescription drug)	Overdose	Addiction
Family history of substance use disorder		Misuse
Adolescent		Addiction
Age <45		Misuse
Age >65	Overdose	
Sleep-disordered breathing	Overdose	
Legal history (e.g., DUI, incarceration)		Misuse
History of sexual abuse		Misuse
History of overdose	Overdose	

Akbik H, et al. *J Pain Symptom Manage*. 2006
Ives J, et al. *BMC Health Serv Res*. 2006
Liebschutz JM, et al. *J Pain*. 2010
Michna E, et al. *J Pain Symptom Manage*. 2004
Reid MC, et al. *J Gen Intern Med*. 2002
Volkow ND et al. *N Engl J Med.* 2016

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Psychiatric Co-Morbidities

Condition	Prevalence Patients with Chronic Pain	References
Depression	33 - 54%	Cheatle M, Gallagher R. 2006. Dersh J, et al. 2002.
Anxiety Disorders	16.5 - 50%	Knaster P, et al. 2012. Cheatle M, Gallagher R. 2006.
Personality Disorders	31 - 81%	Polatin PB, et al. 1992. Fischer-Kern M, et al. 2011.
PTSD	49% veterans 2% civilians	Otis, J, et al. 2010. Knaster P, et al. 2012.
Substance Use Disorders	15 - 28%	Polatin PB, et al. 1992. Cheatle M, Gallagher R. 2006.

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Screening for Depression: PHQ2

Over the *last 2 weeks*, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

2. Feeling down, depressed, or hopeless

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

Positive if ≥3 points

Test Sensitivity: 83%
Test Specificity: 92%

If positive, administer PHQ9

Kroenke K, et al. *Med Care.* 2003

46

Screening for Anxiety: GAD-2[1]

Over the *last 2 weeks*, how often have you been bothered by any of the following problems?

1. Feeling nervous, anxious, or on edge

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

2. Not being able to stop or control worrying

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

Positive if ≥3 points

Test Sensitivity: 83%

Test Specificity: 92%

If positive, administer GAD-7

Assess for other Mental Illness

- **PTSD**[2] Primary Care PTSD Screen for DSM-5 (PC-PTSD-5), 5-item screen
- **Suicidality**[3] Ask Suicide-Screening Questions (ASQ), 4-item screen

1. Kroenke K, et al. *Ann Intern Med.* 2007 2. www.ptsd.va.gov 3. www.nimh.nih.gov/labs-at-nimh/asq-toolkit-materials 47

Screening for Substance Use

Alcohol

"Do you sometimes drink beer, wine, or other alcoholic beverages?"

"**How many times** in the past year have you had…
5 or more drinks in a day?" (men)

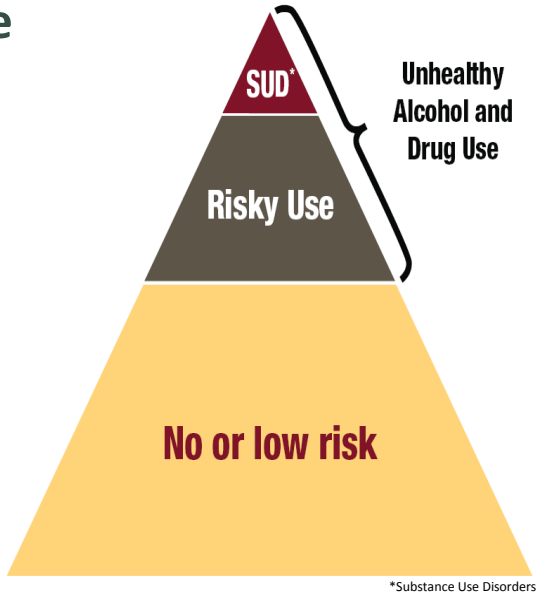
4 or more drinks in a day?" (women)

(Positive: > never)

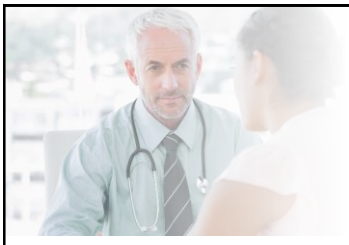
Drugs

"**How many times** in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?"

(Positive: > never)



Smith PC, et al. *J Gen Intern Med*. 2009, Smith PC, et al. *Arch Intern Med*. 2010. *Image*: SBIRT Clinician's Toolkit www.MASBIRT.org 48



CASE STUDY
Kathy James

Screening Results

- Positive for a tobacco use disorder
- Negative for unhealthy alcohol or other drug use
- Negative for depression and anxiety

When Are Opioids Indicated?

When…

- **Pain is severe**
- **Pain type potentially opioid-responsive**
  (e.g., musculoskeletal or neuropathic but NOT fibromyalgia, migraines)
- **Pain has significant impact on function**
- **Pain has significant impact on quality of life**
- **Inadequate benefit from non-opioid treatment modalities**
- **If already on opioids, is there documented benefit?**

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Getting Help from a Pain Specialist

- Know what services your pain specialist offers
- Get second opinion from your colleagues

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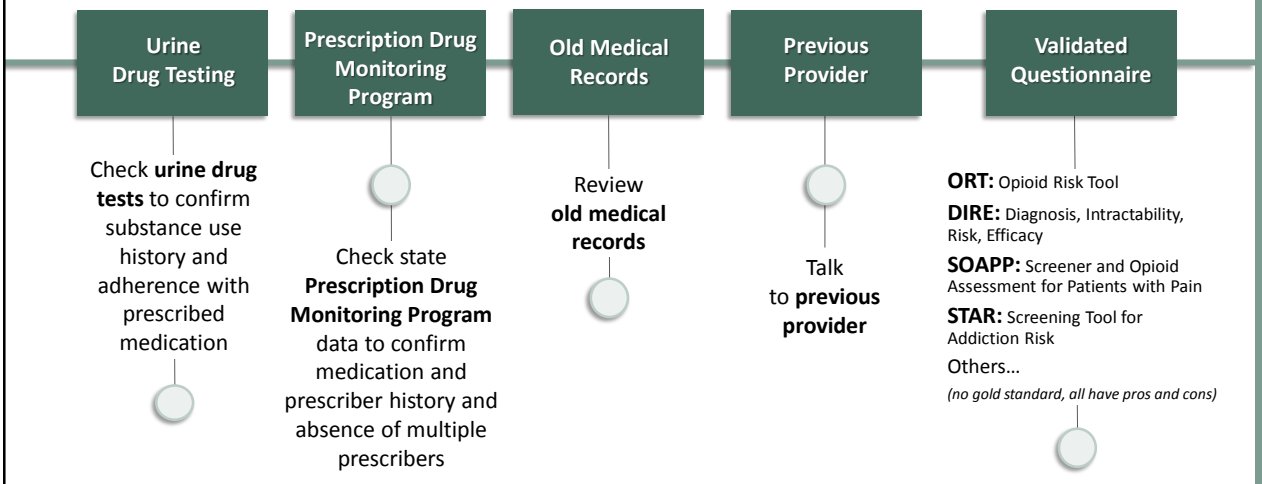
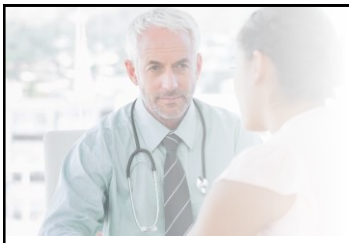
Assess for Opioid Misuse Risk Prior to Prescribing



Moore TM, et al. *Pain Med*. 2009

52



CASE STUDY
Kathy James

PDMP showed oxycodone 10 mg #120 tablets per month x 12 months with 1 prescriber and pharmacy, last filled 7 weeks ago

Next Steps

- Prescribe oxycodone/APAP 10/325 mg every 6 hours x 2 weeks [#56 tablets]
- Send UDT
- Call previous PCP

Review of Previous Medical Records

- Problem and medication lists reconciled
- Inadequate documentation about benefits (e.g. pain, function) or monitoring (e.g. urine drug tests) BUT no evidence of worrisome behaviors (e.g. early refills)

Questions for Next Visit

Clinician Concerns:

- Should I change the opioid dose?
- Should I change to an ER/LA opioid?
- What about any other adjuvant medications or therapies?
- What sort of treatment plan should I develop?

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Summary: Part 1

Opioids:

- Should not be first line treatment option
- Are just one tool in a multimodal approach that includes self-care
- Side effects are common but can be managed
- Carry significant risk including addiction, overdose, death
- Misuse risk can be assessed using systematic approach which includes screening for co-morbidities and use of validated risk assessment questionnaires

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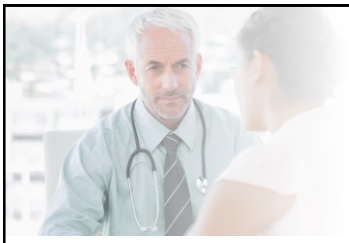
SCOPE of Pain
www.scopeofpain.org

Part 2:

Safer Opioid Prescribing



CASE STUDY
Kathy James

Should opioids be continued?

Should the opioid be changed?

2 weeks later

In the interim…

- Unable to contact previous PCP who retired and moved out of state
- UDT positive for oxycodone

Office Visit 2

- PEG (Pain, Enjoyment, General activity) "6 out of 10" but sometimes a "10 out of 10" before next dose
- She denied sedation
- Completed her 2 week prescription for oxycodone/APAP on schedule

Opioids

Immediate Release/ Short-acting (IR/SA)	Extended Release/ Long-acting (ER/LA)
• Morphine	• Morphine
• Hydrocodone	• Hydrocodone
• Hydromorphone	• Hydromorphone
• Oxycodone	• Oxycodone
• Oxymorphone	• Oxymorphone
• Tramadol	• Tramadol
• Tapentadol	• Tapentadol
• Buprenorphine (buccal)	• Buprenorphine (transdermal)
• Fentanyl (transmucosal)	• Fentanyl (transdermal)
• Codeine	• Methadone

Product-specific information: http://dailymed.nlm.nih.gov/dailymed; pharmacy medication guide; www.fda.gov/downloads/Drugs/DrugSafety/InformationbyDrugClass

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Opioids

IR/SA Opioids

- No opioid tolerance/opioid naïve
- Intermittent or occasional pain (PRN dosing)

CDC Recommendation 4:
When starting opioids, use immediate-release instead of extended-release opioids.
Dowell D, et al. *MMWR*. 2016.

Always **start low** and **go slow**

ER/LA Opioids

- Opioid tolerance exists
- Constant, severe, around-the-clock pain (scheduled dosing)
- To stabilize pain relief when patient using multiple doses of IR/SA opioids
- Note: No adequate studies of ER/LA opioids in pregnant women; use only if benefit significantly outweighs risk.
- **MUST NOT be broken, chewed or crushed**

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IR/SA vs ER/LA Opioid Uncertainties

Insufficient Evidence

to determine whether ER/LA opioids are more effective or safer than IR/SA opioids

Individualize Treatment
Choose options that best meet patient's needs

Debate

whether bolus dosing (IR/SA) or continuous exposure (ER/LA) is more likely to result in analgesic tolerance, hyperalgesia or addiction

Chou R, et al. *J Pain Symptom Manage*. 2003
Argoff CE, Silvershein DI. *Mayo Clin Proc*. 2009

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Transdermal Preparations

- Convenient dosing
- Slow peak onset (>24-72h)
- Delayed offset (serum t½ life >17-26h)
- Sustained release requires predictable blood flow and adequate subcutaneous fat
- Absorption is increased with fever or broken skin
- Absorption is decreased with edema
- Some with metal foil backing and not compatible with MRI

Fentanyl
- Every 72 hours
- Dosages available (mcg/hr): 12, 25, 37.5, 50, 62.5, 75, 87.5, 100

Buprenorphine
- Every 7 days
- Dosages available (mcg/hr): 5, 7.5, 10, 15, 20

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Methadone is Different

- The problem…potentially the most dangerous opioid
- Long, variable, unpredictable half-life
  - Analgesia 6-8 hours
  - Serum t½ 20-120 hours
- QTc prolongation, risk of torsades de pointes

Some possible advantages:

- NMDA receptor antagonist
  - Potentially less analgesic tolerance, better efficacy in neuropathic pain
- No active metabolites
- Inexpensive, small dosage units (5mg tablets)

Fredheim OM, et al. *Acta Anaesthesiol Scand*. 2008
Chou R, et al. *J Pain*. 2014

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Dual Mechanism Opioids

Tramadol

Mu-opioid agonist and norepinephrine and serotonin reuptake inhibitor

Tapentadol

Mu-opioid agonist and norepinephrine reuptake inhibitor

- Seizure risk
- Physical dependence
- Controlled substances with addiction potential

Medical Letter. April 2010

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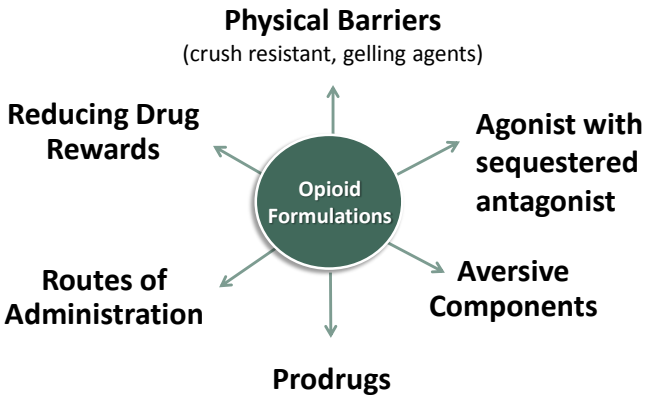
Abuse Deterrent/Resistant Formulations



Currently, there are **no proven 100%** abuse resistant opioids or formulations

Updated list of abuse-deterrent ER/LA opioids: www.fda.gov/drugs/drugsafety

Passik SD. *Mayo Clin Proc.* 2009 Stanos SP, et al. *Mayo Clin Proc*. 2012. Larochelle MR. et al. *JAMA Intern Med*. 2015. Michna E. et al. *Curr Med Res Opin*. 2014 Cassidy TA. et al. *Pain Med.* 2014. Medical Letter. Aug 31, 2015.

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Opioid Choice and Dosing: Considerations

- Duration and onset of action
  - Consider pattern of pain – intermittent vs. constant
- Patient's prior experience (differing effects and side effects)
  - Mu-opioid receptor polymorphisms
  - Differences in opioid metabolism
- Patient's level of opioid tolerance
  (always assess before starting ER/LA opioid formulations)
- Route of administration
- Cost and insurance issues

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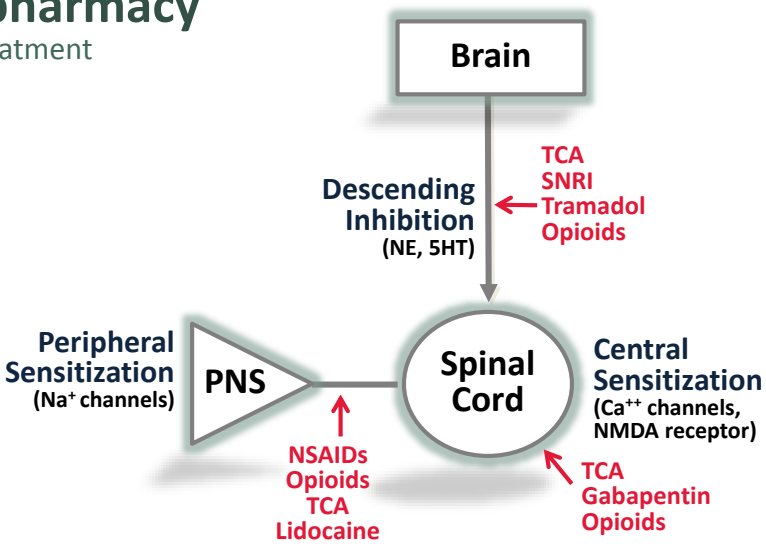
Rational Polypharmacy

Mechanism-Specific Treatment
Multiple targets…



Finnerup NB, et al. *Pain.* 2010
Woolf CJ. *Ann Intern Med*. 2004

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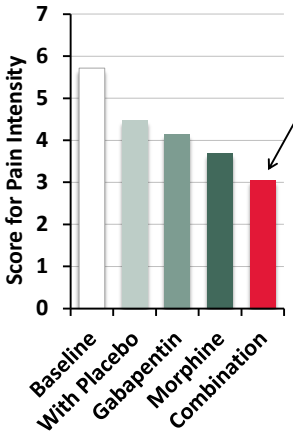
Exploit Synergism (e.g., treating neuropathic pain)

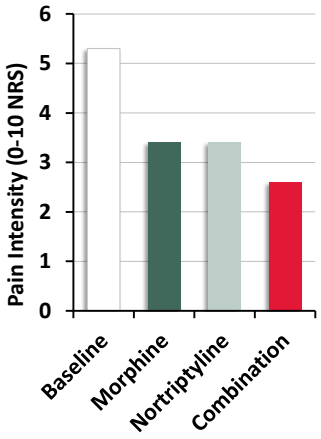


With lower doses of both medications

Caution:
Co-prescribing gabapentinoids and opioids recently associated with dose-dependent increased risk for opioid-related deaths

Gomes T et al. *Ann Intern Med*. 2018
Goodman WC, Breatt AS. *N Engl J Med*. 2017

Gilron I, et al. *N Engl J Med*. 2005



Gilron I, et al. *Pain*. 2015

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Drug-Drug Interactions

CNS Depressants
- Benzodiazepines, alcohol, other sedatives, hypnotics, TCAs, MAOI
- Can have potentiating effect on sedation and respiratory depression caused by opioids

Alcohol
- May rapidly release opioid (dose dump)
- May increase some drug levels without dose dumping

Diuretics
- Opioids can reduce efficacy by inducing release of antidiuretic hormone (ADH)

Some Opioids
(methadone, buprenorphine)
- Can prolong the QTc interval

Concomitant drugs that act as inhibitors or inducers of various cytochrome P450 enzymes

DAILYMED

http://dailymed.nlm.nih.gov/dailymed

National Institutes of Health| U.S. National Library of Medicine| Health & Human Services

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Age Considerations

Elderly[1]

- Drug-drug interactions
- Drug-disease interactions
  - CHF, chronic liver and renal disease
  - Dementia
- Decline in therapeutic index with age-related predisposition to adverse drug effects
- Fall risk

Pediatrics[2]

- 2 ER/LA opioids approved, based on safety studies
  - OxyContin (ER/LA oxycodone), for age 11 to 16
  - Duragesic (transdermal fentanyl), for age 2 and older

1. American Geriatrics Society Panel. *J Am Geriatr Soc*. 2009
2. FDA Blueprint, Aug 2015

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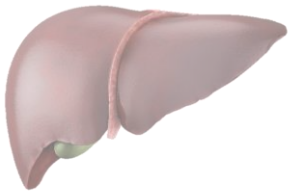
Special Populations – Liver Disease

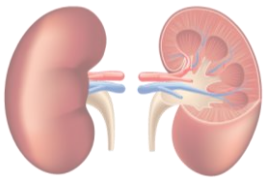


- Opioid clearance is decreased with hepatic insufficiency
  - Increased risk of hepatic encephalopathy
- Fentanyl likely safe with modest hepatic dysfunction
- Morphine, oxycodone, and hydromorphone require reduced doses and prolonged dosing intervals
- Codeine effects are difficult to predict, and alternatives should be considered
- Tramadol may be safe but experience is limited
- Nonopioids in advanced liver disease
  - Acetaminophen: limit to 2 g/d
  - NSAIDs: increased risk of variceal bleed, impaired renal function, and diuretic-resistant ascites
  - Gabapentin, pregabalin, and nortriptyline can be used but lower doses

Hamilton JP, et al. *UpToDate.* Dec 2018

70

Special Populations – Renal Disease

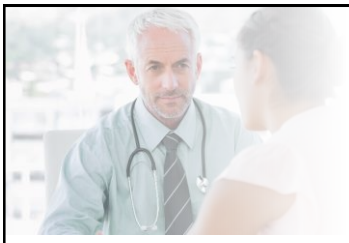


- Opioids should be used with caution as there is poor understanding of opioid pharmacokinetics and pharmacodynamics among patients with reduced eGFR
- Preferred opioids are hydromorphone, methadone, fentanyl and buprenorphine
- Oxycodone is a 2nd line opioid, due to accumulation of active metabolites
- Morphine and codeine are not recommended due to accumulation of active metabolites associated with significant toxicity
- Tramadol can be used at a lower dose

- Nonopioids
  - Generally do not use NSAIDs
  - Acetaminophen, gabapentin, pregabalin can be used
  - TCAs are 2nd line as side effects are more common among CKD patients; can be used but lower doses

Davison SN. *UpToDate.* Dec 2017

71



CASE STUDY
Kathy James

40 year old female
T2DM
Chronic, painful, diabetic neuropathy and hip pain
ER/LA oxycodone and gabapentin

- Reviewed, signed Patient Provider Agreement (PPA)
- Changed medication regimen:
  - **Opioids**
    - Tolerates IR oxycodone 10 mg 4x/day (60 MME) but…
      - Periodicity of effects (on-off) may be causing inadequate pain control due to "withdrawal-mediated pain"
      - Analgesia may improve with more stable blood levels using ER/LA oxycodone at lower dose (15 mg 2x/day) (45 MME)
      - Don't assume need for breakthrough medication
  - **Adjuvant Medications**
    - Increase gabapentin to 400 mg 3x/day
- Referred to physical therapy for chronic right hip pain
- Counseled on weight loss, smoking cessation

Universal Precautions when Prescribing Opioids

Part of an Office Controlled Substance Policy

- **Predicting opioid risk and misuse is imprecise**
  - Protects all patients
  - Protects the public and community health
- **Consistent application of precautions**
  - Reduces patient perceived stigma
  - Standardizes systems of care
- **Consistent with expert guidelines**
  - American Pain Society/American Academy of Pain Medicine
  - American Society of Interventional Pain Physicians
  - American Academy of Neurology
  - Canadian National Pain Centre
  - Centers for Disease Control and Prevention
  - Federation of State Medical Boards
  - VA/DoD Clinical Practice Guidelines

Gourlay DL, et al. *Pain Med*. 2005 Nuckols TK. et al. *Ann Intern Med*. 2014

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Common Universal Precautions

- Comprehensive pain assessment
- Formulation of pain diagnosis(es)
- Opioid misuse risk assessment
- Opioid prescriptions should be considered a test or trial; continued, modified or discontinued based on assessment and reassessment of risks and benefits (e.g. every 1-3 months)
- Prescription should include maximum number of tablets that can be taken per day
- Regular face-to-face visits including periodic review of all medications
- Co-prescribe naloxone
- Clear documentation of your assessment and plan

Federation of State Medical Boards *Model Policy* April 2017.
Chou R, et al. *J Pain*. 2009
Gourlay DL, et al. *Pain Med.* 2005
Franklin GM. *Neurology*. 2014

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Common Universal Precautions

CDC Recommendations 8, 9, and 10:
Use strategies to mitigate risk including naloxone co-prescribing, reviewing PDMP data, using urine drug testing.
Dowell D, et al. *MMWR*. 2016

Patient Prescriber Agreements (PPA)

- **Informed Consent** and **Plan of Care**
- Reviewed and signed by both patient and prescriber
- Written at no higher than 8th grade level, reviewed regularly (e.g. annually)
- Serves as a **Patient Counseling Document**
- Efficacy not well established but no evidence of negative impact on patient outcomes

Monitoring for adherence, misuse, and diversion

- Urine drug testing
- Pill counts
- Prescription Drug Monitoring Program (PDMP) data

Nicolaidis C. *Pain Med.* 2011
Paterick TJ, et al. *Mayo Clin Proc.* 2008
Cheatle MD, Savage SR. *J Pain Symptom Manage*. 2012
Tolia VN, et al. *N Engl J Med.* 2015
Mailis-Gagnon A, et al. *Clin J Pain*. 2012
Schumacher MB, et al. *Pschopharm*. 2017
75

PPA Informed Consent

Realistic Goals

- Reduce pain, not eliminate
- Increase function (individualized and **SMART goals**)
  - **S**pecific
  - **M**easureable
  - **A**ction-oriented
  - **R**ealistic
  - **T**ime-sensitive

CDC Recommendation 2 and 3:
Before starting opioids establish realistic goals. Continue opioids only if meaningful improvements outweighs risks. Discuss risks and benefits of opioids.
Dowell D, et al. *MMWR*. 2016

Potential Risks

- Side effects, physical dependence
- Drug interactions
- Over-sedation and potential for impairment (esp. during dose adjustments); e.g. driving risk
- Misuse, overdose, death
- Pregnancy and risk of Neonatal Opioid Withdrawal Syndrome
- Possible hyperalgesia (increased pain)
- Victimization by others seeking opioids

Nicolaidis C. *Pain Med.* 2011
Paterick TJ, et al. *Mayo Clin Proc.* 2008
Cheatle MD, Savage SR. *J Pain Symptom Manage*. 2012
Tolia VN, et al. *N Engl J Med.* 2015
Mailis-Gagnon A, et al. *Clin J Pain*. 2012
Schumacher MB, et al. *Pschopharm*. 2017
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PPA Plan of Care

- Engagement in other recommended treatments
- Polices and procedures – monitoring, refills
- Medication management
- Use exactly as directed in pharmacy Medication Guide
  (no adulteration of ER/LA pills, patches, buccal film; guidance on missed doses)
- No illegal drug use, avoid sedative use
- Notifying provider of all other medications and drugs, and permission to communicate with key others
- Notifying provider of worsening pain or medication side effects
- Discuss birth control, periodic monitoring for pregnancy
- Safe storage, safe disposal, no sharing or selling

Fishman SM, Kreis PG. *Clin J Pain.* 2002 Arnold RM, et al. *Am J Med.* 2006

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Monitoring for Benefits and Harm

- **Benefit**
  - Assess and document PEG scores
  - Assess and document achievement of SMART goals

CDC Recommendation 7:

Evaluate benefits and harms within 4 weeks of starting and at least every 3 months thereafter.

Clinically meaningful improvement defined as a "30% improvement" in pain and function.

Dowell D, et al. *MMWR.* 2016.
Ostelo RW et al. Spine 2008

- **Harm**
  - Current Opioid Misuse Measure (COMM-9)* self-administered
  - Pill counts (scheduled vs. random)
  - Urine drug tests (scheduled vs. random)
  - Prescription Drug Monitoring Program data
  - History from "reliable" family members
    - Beware of family members with secondary gain for giving inaccurate information

*McCaffrey SA, et al. *Pain Med.* 2019

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Face-to-Face Office Visits

Monitoring for:

Six A's

- **A**nalgesia
- **A**ctivities
- **A**dverse effects
- **A**berrant behaviors
- **A**ffect
- **A**dherence

Also review…

Opioid use using a 24-hour inventory

"Tell me how you are taking your medications."

Passik SD, et al. *Clin Ther.* 2004

79

Urine Drug Testing

Objective information that can provide:

- Evidence of therapeutic adherence
- Evidence of use or non-use of illicit drugs

- Discuss urine drug testing openly with patient
  - "If I send your urine right now, what will I find in it?"
- Document time of last medication use
- Random, scheduled and/or when concerns arise
- One medical data point to integrate with others
  - Cannot discriminate elective use, addictive use and diversion
- Small risk for mislabeling, other lab error
- Dedicated deceivers can beat the system

Argoff CE, Alford DP, Fudin J et al. *Pain Med.* 2018
Nagpal G et al. *JAMA.* 2017
Christo PJ, et al. *Pain Physician.* 2011

80

Urine Drug Testing

- **Urine drug screens** are usually immunoassays
  - Can be done at point of care or in a lab
  - Quick and relatively inexpensive
  - Need to know what is included in testing panel
  - Risk of false negatives due to cut offs
  - Risk of false positives due to cross reactions
- **Unexpected findings can be verified with definitive testing** using Gas Chromatography (GC) or Liquid Chromatography (LC) and Mass Spectroscopy (MS)
- **Identify a toxicologist/clinical pathologist for questions regarding unexpected results**

Argoff CE, Alford DP, Fudin J et al. *Pain Med.* 2018
Reisfield GM, et al. *Bioanalysis.* 2009

81

Urine Drug Testing

- **GC-MS or LC-MS definitive/confirmation testing**
  - Identifies specific molecules
    - Sensitive and specific but more expensive
  - Measurement of urine drug levels is **not** a valid method of determining the amount of opioid ingested
- Know opioid metabolism to interpret GC-MS or LC-MS results
  - Examples:
    - Hydrocodone → hydromorphone
    - Oxycodone → oxymorphone
    - Morphine → hydromorphone

Argoff CE, Alford DP, Fudin J et al. *Pain Med.* 2018
Peppin JF, et al. *Pain Med.* 2012
Reisfield GM, et al. *Bioanalysis.* 2009

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Pill Counts

Objective information that can provide:

- Confirm medication adherence
- Minimize diversion

Strategy	
	28 day supply (rather than 30 days) prevents running out on weekends
	Prescribe so that patient should have residual medication at appointments
	Ask patient to bring in medications at each visit
	For identified risks or concerns, can request random call-backs for immediate counts

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Prescription Drug Monitoring Programs (PDMP)

- Prescription data available to prescribers (and delegates in some states) and pharmacists
- >60% states mandate use before prescribing controlled substances
- PDMP use can change prescriber behaviors
- Systematic review* insufficient evidence that PDMP implementation either increases or decreases nonfatal or fatal overdoses

Haffajee RL, et al. *JAMA.* 2015
Haegerich TM, et al. *Drug Alcohol Depend.* 2014
Patrick SW, et al. *Health Affairs.* 2016
*Fink DS, et al. *Ann Intern Med*. 2018
www.pdmpexcellence.org/sites/all/pdfs/Brandeis_PDMP_Report.pdf

84

Minimum Level of Monitoring Based on Risk

One example from TOPCARE* (Transforming Opioid Prescribing in Primary Care) program:

Risk Level • **ORT:** Opioid Risk Tool • **DIRE:** Diagnosis, Intractability, Risk, Efficacy • **SOAPP:** Screener & Opioid Assess for Pts w/ Pain • **STAR:** Screening Tool for Addiction Risk	**Face-to-Face Visits/ year**	**UDT/ year**	**Pill Counts/ year**	**PDMP*/ year**
• **Low**	**4**	**2**	**2**	**2**
• **Moderate**	**4**	**4**	**4**	**4**
• **High**	**6**	**6**	**6**	**6**

- **States laws may mandate level of monitoring** (e.g., check PDMP before every opioid prescription)
- **Note that monitoring should be more intensive during 1st 6 months of opioid therapy**

* http://mytopcare.org/ Liebschutz JM, et al. *JAMA Intern Med*. 2017

85

What is the Clinician's Role?

- Use a risk-benefit framework
- Judge the opioid treatment, *not* the patient

Not

Nicolaidis C. *Pain Medicine.* 2011

86

Discussing Monitoring

- Review the personal and public/community health risks of opioids
- Discuss your responsibility to look for and manage early signs of harm
- Discuss agreements, pill counts, and drug tests as ways that you are helping to protect patient from getting harmed by medications

Use a consistent approach
(Universal Precautions)
BUT
apply it individually
to match risk

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Managing Harm: Opioid Adverse Effects

Nausea and vomiting	Usually resolves in few days; antiemetics, switch opioids
Sedation Mostly during initiation or change in dose	**Decrease dose**
Constipation Most common and should be anticipated	Senna laxatives, bowel stimulants, peripheral-acting opioid antagonists, switch opioids; avoid bulking agents
Pruritus	Switch opioids, antihistamines
Urinary Retention	Switch opioids

Benyamin R, et al. *Pain Physician*. 2008

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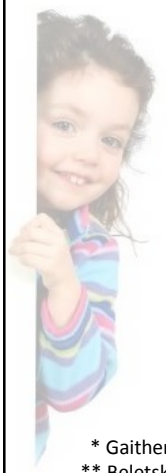
Collateral Opioid Risk



Risks

- Young children's ingestion and overdose*
- Adolescent experimentation leading to overdose and addiction
- Other household contacts (family, visitors)

Mitigating risk

- Safe disposal and storage (e.g. lock box)
- Educate family members
- Have poison control number handy
- Opioid overdose education and naloxone distribution**
- More information at: www.prescribetoprevent.org

* Gaither JR, et al. JAMA Pediatr. 2016
** Beletsky L, Rich JD, Walley AY. *JAMA* 2012
** SAMHSA Overdose Toolkit http://store.samhsa.gov/shin/content/SMA13-4742/Toolkit_Patients.pdf)

SAFER
opioid prescribing
is a lot of work!

Optimize Office Systems

Optimizing Office Systems at:
www.SCOPEofpain.org
click on Supplemental Training

- Office controlled substance **policies and procedures**, reflected in PPA
- **Patient registry**
  - Allows practice managers to track office-wide adherence to guideline-based practices
  - National Committee for Quality Assurance (NCQA) - Healthcare Effectiveness Data and Information Set (HEDIS®) measures
    - To track clinical performance including use of opioids at high dose and from multiple prescribers www.ncqa.org/hedis/measures/
- **Utilize other non-prescribing staff**
  - Nurses, medical assistants, pharmacists, psychologists
- **Lists of referral and support resources** (pain, mental health, addiction)

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Documentation: Rationale for All Decisions

Protects prescriber when concerns arise:

- Subjective reports from patient, family, co-care providers
- "6 As"*
  - Analgesia, Activities, Adverse Effects, Aberrant Behaviors, Affect and Adherence standardized screens and assessments
- Objective information
  - Observations, drug tests, pill counts, PDMP
- Clinical and diagnostic impressions

Know federal and state guidelines and regulations:
www.deadiversion.usdoj.gov/pubs/manuals/index.html

Templates in Resources at:
www.scopeofpain.org
mytopcare.org

*Passik SD, et al. *Clin Ther.* 2004

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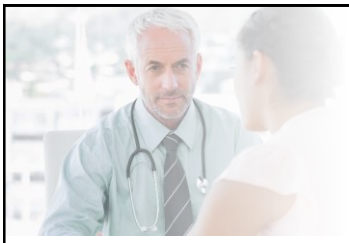

CASE STUDY
Kathy James

40 year old female
T2DM
Chronic, painful, diabetic neuropathy and hip pain
ER/LA oxycodone and gabapentin

In the ensuing months…

- Patient reports somewhat more consistent pain relief and denies sedation
- But about 9 hours after her ER/LA oxycodone dose, pain increases and interferes with concentration
- Provider increases ER/LA oxycodone from 15 mg to 20 mg every 12 hours (45→60 MME) to reduce end of dose failure
- In 1 week the nurse contacts her and confirms that this has been effective in improving pain relief; patient reports no sedation and she is more active and able to concentrate on work

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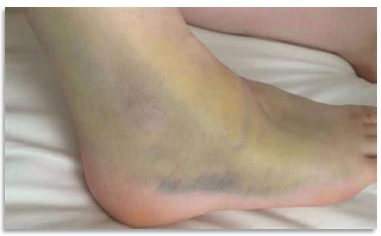
CASE STUDY
Kathy James

40 year old female
T2DM
Chronic, painful, diabetic neuropathy and hip pain
ER/LA oxycodone and gabapentin

? How will you manage this patient's acute pain?

2 months later…

- Presents to the ED 1 day after twisting ankle while running to catch a bus
- Pain severe especially with weight-bearing
- Took husband's hydrocodone tablet which helped
- Requesting "narcotics" for ankle pain
  - Ankle exam: swelling, ecchymosis, tenderness over lateral malleolus and decreased range of motion with evidence of mild joint instability
  - X-ray negative for fracture
  - Dx: grade II/III lateral ankle sprain
  - PDMP reviewed: monthly ER/LA oxycodone 20 mg bid #56, last filled 2 weeks ago



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Treating Acute Pain in the Emergency Department

21% ED visits in which opioid was prescribed[1] **31%**

2001 2010

- Wide variation in opioid prescribing rates among ED physicians[2]
- Among opioid-naïve ED patients who filled opioid prescription for mild-moderate acute pain, 17% were still taking opioids 1 year later[3]
- Patients in ED with acute extremity pain, there was **no statistically significant or clinically important difference in pain reduction** at 2 hours among single-dose treatment with **ibuprofen + acetaminophen or** with 3 different **opioid + acetaminophen combination analgesics**[4]

1. Mazer-Amirshahi M, et al. *Acad Emerg Med*. 2014
2. Barnett ML, et al. *N Engl J Med*. 2017
3. Hoppe JA, et al. *Ann Emerg Med*. 2015
4. Chang AK, et al. *JAMA*. 2017

CASE STUDY
Kathy James

40 year old female
T2DM
Chronic, painful, diabetic neuropathy and hip pain
ER/LA oxycodone and gabapentin

40 year old female

- Patient was discharged home with a treatment plan consisting of rest, ice, elastic bandage compression, elevation and support orthosis with early weight-bearing
- Prescribed a combination of ibuprofen 600 mg with acetaminophen 500 mg 3x/day
- She left the ED extremely upset stating, “These drugs are not going to touch my pain!”
- She was educated about the risks of taking someone else’s prescription opioids including overdose and death
- She returned to work in 10 days

CASE STUDY
Kathy James

Did well on regimen of ER/LA oxycodone 20 mg bid with gabapentin 400 mg 3x/day for the next 11 months…

Scenario 1	Scenario 2	Scenario 3	Scenario 4
• Worrisome opioid taking • Potential loss of benefit • Opioid rotation	• Continued lack of benefit • Provider recommended opioid discontinuation	• Patient requested opioid discontinuation	• Worrisome opioid taking • Diagnosing and managing opioid use disorder
			

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CASE STUDY
Kathy James

Did well on regimen of ER/LA oxycodone 20 mg bid with gabapentin 400 mg 3x/day for the next 11 months…

Scenario 1	Scenario 2	Scenario 3	Scenario 4
• Worrisome opioid taking • Potential loss of benefit • Opioid rotation	• Continued lack of benefit • Provider recommended opioid discontinuation	• Patient requested opioid discontinuation	• Worrisome opioid taking • Diagnosing and managing opioid use disorder
			

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SCENARIO 1 CASE STUDY
Kathy James

40 year old female

T2DM

Chronic, painful, diabetic neuropathy and hip pain

ER/LA oxycodone and gabapentin

- She then went to the ED of her local hospital, **requesting early refill** of her oxycodone
- ED physician noted that she was in moderate opioid withdrawal and gave her enough ER/LA oxycodone to last until her next PCP appointment in one week
- ED physician left a message with the PCP office regarding patient visit and follow-up plan

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SCENARIO 1 CASE STUDY
Kathy James

40 year old female

T2DM

Chronic, painful, diabetic neuropathy and hip pain

ER/LA oxycodone and gabapentin

Post ED Follow-up

History since last visit

- Foot pain worse in past month “10 out of 10 most days”
- Started taking an extra ER/LA oxycodone in the afternoon and ran out early
- Concerned “body has become used to current dose”; doesn’t seem to work all day anymore
- Husband says she has become “addicted”
- Difficult to go to work due to severe pain
- Trouble sleeping as sheets touching her feet now cause pain
- Requests increase in her dose
- She is re-educated about the serious risks including death of self-escalating her opioid dose

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Consider the Differential Diagnosis for Worrisome Medication-Taking Behaviors

Pain Relief Seeking

- Disease progression
- Poorly opioid responsive pain
- Opioid analgesic tolerance
- Withdrawal mediated pain
- Opioid-induced hyperalgesia

Pain Relief and Substance Seeking

e.g. patient with chronic pain, with co-morbid opioid use disorder, taking opioids for pain and diverting some for income

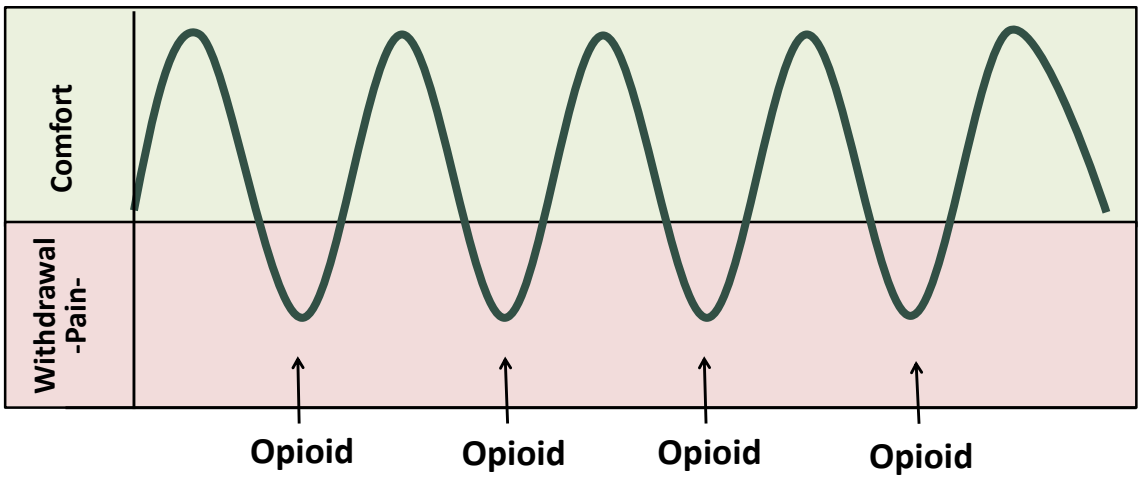
Substance Seeking

- Opioid use disorder/addiction
- Other psychiatric diagnosis
- Criminal intent (diversion)

Alford DP. *JAMA*. 2013

101

Opioid Withdrawal Mediated Pain in Patient with Opioid Physical Dependence



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Opioid-Induced Hyperalgesia (OIH)

- Paradoxical enhanced pain sensitivity in patients on chronic opioid therapy
- Underlying pathophysiology is complex and not clearly understood
- True incidence is unknown
- No official criteria or guidelines for diagnosing OIH
  - Clinically pain is generalized, diffuse, ill-defined and not necessarily located at the source of original pain
- Increased dose may improve analgesia but only temporarily
- No studies looking at opioid taper for OIH

Yi P, Pryzbylkowski P. *Pain Med.* 2015
Chang G, et al. *Med Clin North Am.* 2007
Lee M, et al. *Pain Physician* 2011
Eisenberg E, et al. *J Pain Symptom Manage.*2014

Addiction (Opioid Use Disorder)

Clinical syndrome presenting as…

Loss of **C**ontrol
Compulsive use
Continued use despite harm
Craving

Worrisome Behaviors
(pattern and severity)

ADDICTION
is a **behavioral maladaptation**

PHYSICAL DEPENDENCE
is a **physiologic adaptation**

Savage SR, et al. *J Pain Symptom Manage.* 2003

Discussing Possible Addiction (OUD)

- Give specific and timely feedback why patient's behaviors raise your concern for possible use disorder (e.g. loss of control, compulsive use, continued use despite harm)
- Remember patients may suffer from both chronic pain and use disorder
- May need to "agree to disagree" with the patient
- Benefits no longer outweighing risks
- "I cannot responsibly continue prescribing opioids as I feel it would cause you more harm than good."
- Always offer referral to addiction treatment

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Lack or Loss of Benefit

What are the next steps?

- Reassess factors affecting pain
- Re-attempt to treat underlying disease and co-morbidities
- Consider…
  - Adding or increasing non-pharmacologic treatment (e.g. acupuncture, CBT)
  - Adding or increasing adjuvant medications for synergy
  - Adding breakthrough medications
  - Opioid rotation

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Consider Breakthrough Medication

1st CHOICE: Non-Opioid
- NSAIDs
- Acetaminophen
- Adjuvant meds

IR/SA Opioid
- Same molecule
- Different molecule

IR/SA Opioid (dual mechanism)
- Tapentadol
- Tramadol

Davies AN, et al. *Eur J Pain.* 2009

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Consider Opioid Rotation

- Switch to another opioid to:
  - Restore analgesic efficacy
  - Limit adverse effects
  - Decreasing overall MME
- Based on large intra-individual variation in response to different opioids
- Different variants of mu-opioid receptors
- Based on surveys and anecdotal evidence
- Promising but needs validation

Inturrisi CE. *Clin J Pain*. 2002
Fine PG , Portenoy RK. *J Pain Symptom Manage*. 2009
Smith HS, Peppin JF. *J Pain Res*. 2014

108

Opioid Conversion Tables

- Derived from relative potency ratios using single-dose analgesic studies in opioid-naïve patients
- Based on limited doses or range of doses
- Does not reflect clinical realities of chronic opioid administration
- Are not reliable due to individual pharmacogenetic differences
- Most tables do NOT adjust for incomplete cross-tolerance

Treillet E, et al. *J Pain Res.* 2018
Webster LR, Fine PG. *Pain Med.* 2012
Pereira J, et al. *J Pain Symptom Manage*. 2001

SCENARIO 1 CASE STUDY
Kathy James

Opioid Rotation

Rotated off
ER/LA oxycodone 20 mg bid
(60 MME)

Converted to
ER/LA morphine 15 mg bid
(30 MME)

ADVANCED OPIOID CONVERTER

Converting From:

First selection: Oxycodone PO
Daily dose: 40 **mg**

Additional drugs to convert if present:

2nd Selection: 0
Daily dose: **mg**

3rd Selection: 0
Daily dose: **mg**

Reduction for incomplete cross tolerance:

Reduction factor: 50 %

--- RESULTS ---

Final opiate chosen (Converting TO): **Morphine chronic PO**

Equivalent dosage of FINAL opiate: **30.00 mg**

https://globalrph.com/medcalcs/opioid-pain-management-converter-advanced/

SCENARIO 1
CASE STUDY
Kathy James

Over the next 18 months after the rotation to morphine

- Medication management
  - Continued ER/LA morphine 15mg 2x/d (30 MME)
  - Titrated gabapentin to 600mg 3x/day
  - Added nortriptyline 25 mg at night
  - Added ibuprofen 400 mg every 8 hours for breakthrough pain
- Continued acupuncture therapy and joined a monthly chronic pain support group
- PEG scores remained between 5-6/10
- Remained employed
- Remained adherent with the treatment plan and monitoring
- Continued with regularly scheduled follow-up visits

CASE STUDY
Kathy James

Did well on regimen of ER/LA oxycodone 20 mg bid with gabapentin 400 mg 3x/day for the next 11 months…

Scenario 1	**Scenario 2**	Scenario 3	Scenario 4
• Worrisome opioid taking • Potential loss of benefit • Opioid rotation	• Continued lack of benefit • Provider recommended opioid discontinuation	• Patient requested opioid discontinuation	• Worrisome opioid taking • Diagnosing and managing opioid use disorder

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SCENARIO 2 CASE STUDY
Kathy James

40 year old female

T2DM

Chronic, painful, diabetic neuropathy and hip pain

ER/LA oxycodone and gabapentin

Due to inadequate benefit, Kathy was rotated from oxycodone to morphine…

- Her pain remained out-of-control (PEG scores 9-10/10)
- After incremental morphine dose increases 30→60 MME without benefit **she was converted back to oxycodone**
- She continued to do poorly: on medical leave from work and spending most of the day in bed (according to her husband)
- She remained adherent with monitoring (UDTs and pill counts)
- On multiple occasions she was confrontational to the office staff when asked to leave a UDT or when she tried to be seen by her PCP without an appointment
- She often called the office demanding to speak to her PCP about her severe pain

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Continued Lack of Benefit

Remember:

- ☐ **Not all chronic pain is opioid responsive**
- ☐ **More opioid is not always better**
- ☐ **More opioid may increase risk of adverse effects**
- ☐ **Some chronic pain improves after opioid taper**

Nilesen HK, et al. *Acta Anaesthesiol Scand*. 2010
Baron MJ, McDonald PW. *J Opioid Manage*. 2006

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Discussing Continued Lack of Benefit

- Stress how much you believe/empathize with patient's pain severity and impact
- Express frustration re: lack of good pill to fix it
- Focus on patient's strengths
- Encourage therapies for "coping with" pain
- Show commitment to continue caring about patient and pain, even without opioids
- Schedule close follow-ups during and after taper

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Discontinuing Opioids

- Do not have to prove addiction or diversion, only assess and reassess the risk-benefit ratio
- If patient is unable to take opioids safely or is non-adherent with monitoring, then discontinuing opioids is appropriate, even in setting of benefits
  - Need to determine how urgent the discontinuation should be based on the severity of the risks and harms
  - Document rationale for discontinuing opioids
  - Determine if the opioid needs to be tapered due to physical dependence

You are <u>NOT</u> abandoning the patient, you are ABANDONING THE OPIOID

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Risk Benefit Framework

Benefits
Pain
Function
Quality of Life

Risks/Harm
Misuse
Addiction, Overdose
Adverse Effects

Useful to Avoid Pitfalls:

"But I really, really need opioids."
"Don't you trust me?"
"I thought we had a good relationship/I thought you cared about me."
"If you don't give them to me, I will drink/use drugs/hurt myself."
"Can you just give me enough to find a new doc?"

RESPONSE: "I cannot continue to prescribe a medication that is not helping you (or is hurting you, or both)."

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SCENARIO 2 CASE STUDY
Kathy James

- Despite the PCPs best efforts to explain the rationale for opioid taper due to **lack of benefit** and **possible harm** (e.g. opioid induced hyperalgesia), she continued to demand higher doses of oxycodone
- She was offered alternative pain treatments including cognitive behavioral therapy
- She became increasingly angry and stood up and stated that she was going to find a new doctor
- She left the office…

CASE STUDY
Kathy James

Did well on regimen of ER/LA oxycodone 20 mg bid with gabapentin 400 mg 3x/day for the next 11 months…

Scenario 1
- Worrisome opioid taking
- Potential loss of benefit
- Opioid rotation

Scenario 2
- Continued lack of benefit
- Provider recommended opioid discontinuation

Scenario 3
- Patient requested opioid discontinuation

Scenario 4
- Worrisome opioid taking
- Diagnosing and managing opioid use disorder

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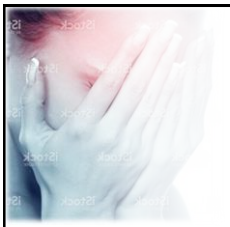

SCENARIO 3 CASE STUDY
Kathy James

40 year old female

T2DM

Chronic, painful, diabetic neuropathy and hip pain

ER/LA oxycodone and gabapentin

? How will you help her taper off oxycodone?

- Presents for an urgent visit after she was unable to get her oxycodone refilled due to her insurance's new prior authorization requirement
  - "My insurance keeps refusing to pay for my pain pills which leaves me without them for days."
- Angry and crying when describing how badly she is treated by her family, the primary care staff, and at the pharmacy:
  - "I am tired of being treated like a criminal."
  - "My other doctor made me do drug tests!"
  - "These pills are ruining my life."
  - "I tried to stop the pills but got sick."
  - "I want to get off these pills."

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Opioids and Pain: Clinician and Patient Perspectives

Patient Themes	Threats to trustworthiness and iatrogenic suffering	Clinicians demonstrated lack of care, empathy which caused further suffering
	Communicating the invisible and subjective condition of chronic pain	Clinicians did not accept reports of pain at face value
	Motive, honesty, and testimony	Perceived as untrustworthy by clinicians
	Stigmatized identities	Having chronic pain… influences the patients' perceived trustworthiness
Clinician Themes	Challenges of the practice context	Recalled difficult interactions and the impact these had on their approach to care
	Complicated clinical relationships	Did not see their role as a collaborative partner… saw themselves in a defensive role of interrogator

Buchman DZ, et al. *Pain Med.* 2016

121

Tapering Opioids

- No validated protocols in patients on opioids for chronic pain
- Systematic review found **very low quality evidence** that suggests several types of opioid tapers may be effective and that pain, function, and quality of life may improve for some patients with opioid dose reduction

Frank JW, et al. *Ann Intern Med.* 2017

122

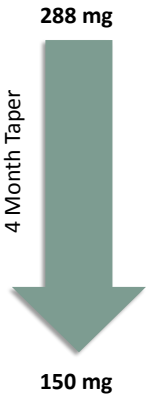
Tapering Opioids

Recent study found 62% of patients in a pain clinic remained in a **voluntary,** patient-centered opioid taper over 4 months with median decreases in morphine mg equivalent daily dose from 288 mg to 150 mg

Likelihood of >50% opioid dose reduction was **not predicted** by:

- Starting dose
- Baseline pain intensity
- Years prescribed opioids
- Any psychosocial variable

Neither pain intensity nor pain interference increased with opioid reduction



Darnall BD, et al. *JAMA Intern Med.* 2018

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Opioid Tapering – General Approach

Speed and Goal
(decrease dose or discontinuation)
depends on reason for taper

- Lack of benefit taper over weeks to months
- Apparent harm/risk taper over days to weeks

FIRST STEP
Reduce medication dose
to the smallest dosage unit

SECOND STEP
Increase amount of time between doses

- IR opioid can be started when at lowest ER/LA opioid dose
- Can use α_2-adrenergic agonist* (e.g., clonidine, tizanidine) to treat withdrawal symptoms

*Off-label

Build up alternative pain treatment modalities as short-term withdrawal can lead to transitory increased pain

Berna C, et al. *Mayo Clin Proc.* 2015

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SCENARIO 3 CASE STUDY
Kathy James

Over the next 12 months…

- Over 6 months she successfully tapered off oxycodone
- For the following 6 months, her neuropathic pain was moderately well controlled on combination of nortriptyline 25 mg at night, gabapentin 800 mg tid and capsaicin cream 3-4 times per day
- Joined a monthly chronic pain support group
- PEG scores remained between 4-5/10 (patient states she is surprised her pain is better off oxycodone)
- Remained employed
- Remained adherent with the treatment plan and monitoring
- Continued with regularly scheduled follow up visits

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CASE STUDY
Kathy James

Did well on regimen of ER/LA oxycodone 20 mg bid with gabapentin 400 mg 3x/day for the next 11 months…

Scenario 1
- Worrisome opioid taking
- Potential loss of benefit
- Opioid rotation

Scenario 2
- Continued lack of benefit
- Provider recommended opioid discontinuation

Scenario 3
- Patient requested opioid discontinuation

Scenario 4
- Worrisome opioid taking
- Diagnosing and managing opioid use disorder

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SCENARIO 4 CASE STUDY
Kathy James

40 year old female

T2DM

Chronic, painful, diabetic neuropathy and hip pain

ER/LA oxycodone and gabapentin

- UDTs were consistently positive for opiates and oxycodone as expected **except** on one occasion her UDT was opiate positive but **oxycodone negative** raising the concern for opioid misuse including diversion
  - Patient stated that she took her oxycodone exactly as prescribed and denied sharing or giving her oxycodone to others
  - Provider unable to confirm result as sample was "quantity not sufficient" for additional testing
  - She also "forgot" to bring her pills bottles in for pill counts on two previous occasions
- This unexpected UDT resulted in increased monitoring frequency with no additional unexpected UDTs over the ensuing two months

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Discussing Possible Diversion

- Prescription drug diversion is one form of opioid misuse and is defined as the giving, selling, or trading prescription medications
- Discuss why you are concerned about diversion
  - e.g. UDT negative for prescribed opioid, nonadherence with pill counts
- Discuss your inability to continue to prescribe opioids if the opioids are being diverted to others

Zacny J, et al. *Drug Alcohol Depend.* 2003

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SCENARIO 4 CASE STUDY
Kathy James

How will you manage this patient?

2 months later…brought to ED by ambulance after suffering an opioid overdose

- Husband found her unresponsive and blue, administered intranasal naloxone with brisk response and called 911
- In the ED, husband reported that over the past months his wife's pain increased resulting in her taking more oxycodone, and taking her father's morphine causing over-sedation, and missing work
- After her previous UDT was oxycodone-negative she made sure she took 1 oxycodone before her office visits
- Husband said he has been in denial of how bad his wife's problem has gotten as he has been busy at work and taking care of his kids. He didn't realize she was becoming addicted to her pain pills…

"Please don't send her home until she gets help with her addiction."
"We've been married for 15 years and I can't lose her!"

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Treatment Gaps Following Opioid Overdose

Opioids were dispensed to 91% of patients after a nonfatal overdose[1]

n=2848

- **7%** had repeat opioid overdose
- At 2 years, cumulative incidence of repeated overdose was **17%** for patients on **high opioid dosages** after the index overdose

Less than a third of opioid overdose survivors receive medications for OUD (MOUD) in the subsequent 12 months[2]

n= 17,568

- Receipt of MOUD was associated with decreased all-cause and opioid-related mortality

1. Larochelle MR, et al. *Ann Intern Med*. 2016
2. Larochelle MR , et al. *Ann Intern Med*. 2018

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Opioid Use Disorder (OUD) Primer

- OUD is a chronic, relapsing brain disorder characterized by compulsive drug use despite adverse consequences, involving:
  - Changes to brain involved in reward, stress, and self-control
  - Changes that persist after stopping drug use
  - Like other chronic diseases, OUD often involves cycles of relapse and remission
  - Without treatment, OUD is progressive and can result in disability or premature death

CDC Recommendation 12:

Offer or arrange evidence-based treatment (usually buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

Dowell D, et al. *MMWR.* 2016.

Volkow ND, Koob GF, McLellan AT. *N Eng J of Med.* 2016
Sordo L, et al. *BMJ.* 2017

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DSM-5 Opioid Use Disorders (OUD)

1. Tolerance*	2. Withdrawal*	3. Larger amounts and/or longer periods	4. Inability to cut down on or control use	5. Increased time spent obtaining, using or recovering

Loss of Control

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

Continued Use Despite Negative Consequences

*This criterion is not considered to be met if taking opioids under appropriate medical supervision

Mild OUD: 2-3 Criteria
Moderate OUD: 4-5 Criteria
Severe OUD: ≥6 Criteria

APA. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.)

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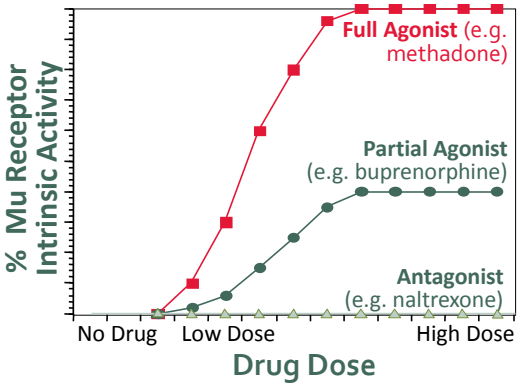
Medications for Treating OUD (MOUD)

- **Goals for MOUD**
  - Alleviate physical withdrawal
  - Opioid blockade
  - Alleviate drug craving
  - Normalize brain changes
- **Robust evidence for MOUD**
  - **Methadone** (dispensed in licensed program only)
  - **Buprenorphine*** (prescribed by waivered MD/DO, NP, PA only)
  - **Naltrexone**

  Resulting in:
  - Increased retention in treatment, increased employment
  - Decreased relapse, decreased HIV and hepatitis C seroconversion, decreased mortality



SAMHSA (2018) Medications for Opioid Use Disorder TIP 63

*Information on becoming qualified to prescribe buprenorphine for OUD at: https://www.samhsa.gov/medication-assisted-treatment/training-resources/buprenorphine-physician-training

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Addiction Treatment Resources

- Large treatment gap between those needing OUD treatment and MOUD availability
- Substance Abuse and Mental Health Services Administration (SAMHSA) treatment locator
  - **www.samhsa.gov/treatment**
- State resources (Department Public Health)
  - Acute treatment services (detoxes), residential treatment, methadone maintenance treatment programs
  - Office-based opioid treatment with buprenorphine or naltrexone
- AA/NA free, widely available and effective

https://pcssnow.org/

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Patient on MOUD and Pain Management

Patient with OUD and Chronic Pain	Patient on MOUD and Acute Pain[2]
• Certain buprenorphine formulations (e.g. sublingual) can be prescribed in office-based settings for treating both chronic pain (*off label*) and OUD *(requires special qualifications under DATA 2000)* • Buprenorphine's analgesic half-life is 8-12 h versus 24 h for treating OUD • Systematic review of 10 studies: all studies (*low quality*) reported effectiveness of buprenorphine in treating chronic pain[1]	• Patients who are physically dependent on opioids (e.g. methadone or buprenorphine) must be maintained on a daily equivalence before ANY analgesic effect is realized with opioids used for acute pain management • Opioid analgesic requirements are often higher due to increased pain sensitivity and opioid cross tolerance

1. Cotes J, Montgomery L. *Pain Med*. 2014
2. Alford DP, et al. *Ann Intern Med*. 2016

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SCENARIO 4 CASE STUDY
Kathy James

Over the next 12 months…

- ED physician treats her OUD with buprenorphine which is continued by her PCP who is waivered to prescribe buprenorphine for the treatment of OUD
- PCP changes buprenorphine dosing to TID to treat both pain and OUD
  - Painful diabetic neuropathy[1] well controlled on combination of buprenorphine 4 mg sublingual 3x/day, duloxetine 30 mg 2x/day and nortriptyline 25 mg at night (*note: gabapentin discontinued due to misuse risk[2] and overdose risk when combined with opioids[3]*)
- She attends Narcotics Anonymous and outpatient addiction counseling
- PEG scores remained between 5-6/10
- Remained employed
- Continued with regularly scheduled follow up visits

1. Waldfogel JM, et al. *Neurology.* 2017
2. Hill J, Alford DP. *Semin Neuro*. 2018
3. Goodman CW, Brett AS. *N Engl J Med*. 2017

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SUMMARY: Part 2

- Employ **universal precautions** but **individualize care** based on risk
- Continue or modify opioid treatment based on clinical indication and response
- Optimize office systems to involve the entire healthcare team
- Document benefits, risks and harms and rationale for the plan of care

SUMMARY: Part 2

- Worrisome opioid-taking behavior can signify pain-relief or substance-seeking behaviors or a combination of both
- It is important to fully assess and then respond to worrisome behaviors
- Decisions to continue or discontinue opioids should be based on reassessment of the risks and benefits of the treatment and should be well-documented
- Medication-based treatment is highly effective in treating opioid use disorders but is not universally available

To Receive Credit

SCOPE of Pain
www.scopeofpain.org

- Complete the post-tests with a cumulative score of 70% or greater
- Complete the evaluation
- Download your certificate, worth 2 *AMA PRA Category 1 Credits™* or 2 nursing contact hours