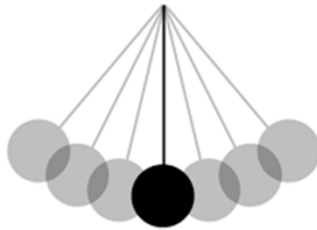


Pharmacologic Management of Pain

as the pendulum swings...



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How did we get here?

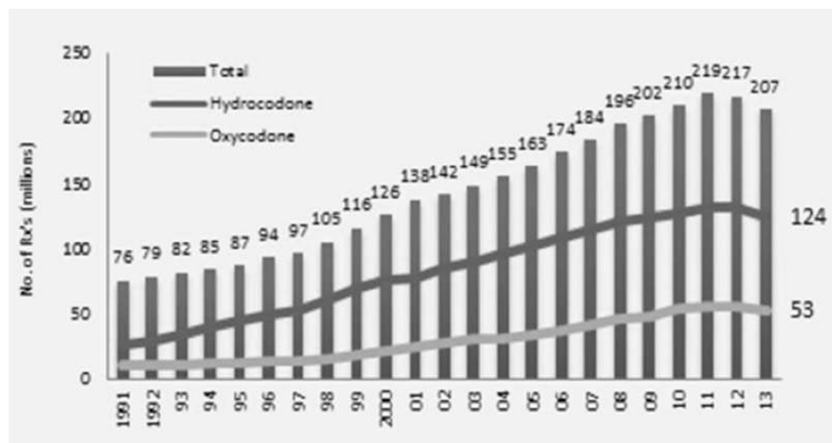
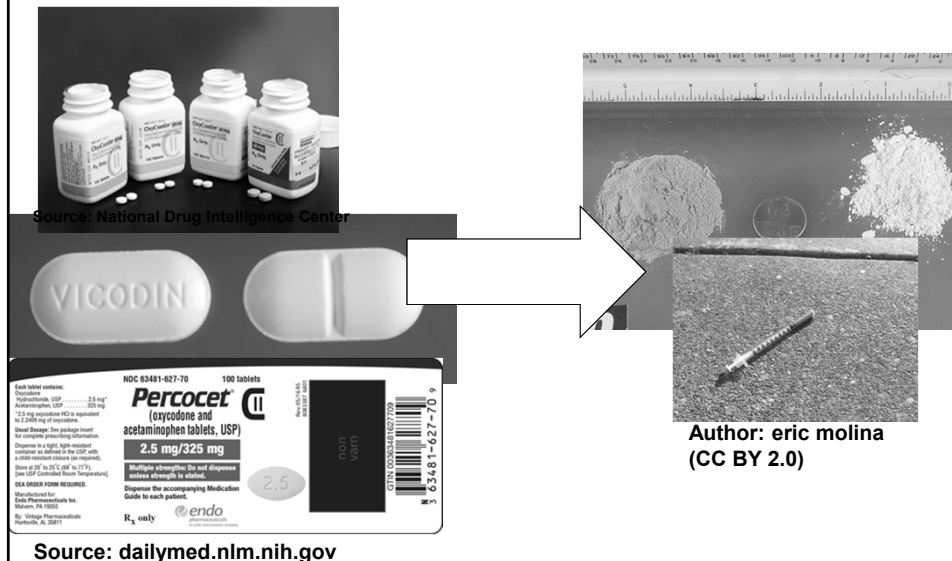


Figure 1 - Opioid Prescriptions Dispensed by US Retail Pharmacies IMS Health, Vector One: National, years 1991-1996, Data Extracted 2011. IMS Health, National Prescription Audit, years 1997-2013, Data Extracted 2014. NIH - <https://www.drugabuse.gov/>

America's Prescription Drug Crisis



The 5th Vital Sign...or is it?

"Just as we now know (the) earth is not flat, we know that pain is not a vital sign. Let's remove that from the lexicon."

➤ **James Milam, MD, an American Medical Association delegate**

"I am astounded that physicians don't believe we should assess pain on a regular and ongoing basis. That is exactly what removing pain as a vital sign means."

➤ **Lynn Webster, MD, past president of the American Academy of Pain Medicine**

<https://www.painnewsnetwork.org/stories/2016/6/16/ama-drops-pain-as-vital-sign>

American Medical Association Stance

- **Dropped pain as the 5th vital sign in 2016**
- **Adopted similar policies as Physicians for Responsible Opioid Prescribing (PROP)**
- **Lobbying the Joint Commission to weaken its pain management standards**

<https://www.painnewsnetwork.org/stories/2016/6/16/ama-drops-pain-as-vital-sign>

Joint Commission Stance

- **Current standards require that organizations establish policies regarding pain assessment and treatment and conduct educational efforts to ensure compliance.**
- **The standards DO NOT require the use of drugs to manage a patient's pain nor specify which drug should be prescribed.**

https://www.jointcommission.org/joint_commission_statement_on_pain_management/

Joint Commission Standards

- **The hospital educates all licensed independent practitioners on assessing and managing pain.**
- **The hospital respects the patient's right to pain management.**
- **The hospital assesses and manages the patient's pain.**

https://www.jointcommission.org/joint_commission_statement_on_pain_management/

Joint Commission Policy Requirements

- **Conducts a comprehensive pain assessment**
- **Uses methods to assess pain that are consistent with the patient's age, condition, and ability to understand**
- **Reassesses and responds to the patient's pain, based on its reassessment criteria**
- **Treats the patient's pain or refers the patient for treatment**

https://www.jointcommission.org/joint_commission_statement_on_pain_management/

What are validated tools for screening and assessing pain?

| | Tool Characteristics | | | |
|--|----------------------------------|------------------|----------------------|------------------------------|
| | Administration | Time to Complete | Length | Access Limitations |
| Assessing Function and Pain | | | | |
| Pain, Enjoyment of life, General Activity (PEG) http://mytopcare.org/wp-content/uploads/2013/06/PEG-Pain-Screening-Tool1.pdf | Patient self-report | 1 minute | 3 items | |
| Two Item Chronic Pain Scale | Clinician or patient self-report | 1 minute | 2 items | |
| Risk of Transitioning to Chronic Pain | | | | |
| STarTBack http://www.keele.ac.uk/sbst/startbacktool/ | Patient self-report | <5 minutes | 9 items | |
| Functional Recovery Questionnaire (FRQ) | Clinician or patient self-report | <5 minutes | 6 items | Requires email registration |
| Screening for Risk of Opioid Addiction and Substance Abuse | | | | |
| Opioid Risk Tool (ORT) ³²⁵ | Clinician or patient self-report | 1 minute | 5 (yes/no) questions | |
| CAGE Adapted to Include Drugs (CAGE-AID) ³²⁶⁻³²⁸ | Clinician | <5 minutes | 4 (yes/no) questions | |
| Screening and Opioid Assessment for Patients with Pain - Revised (SOAPP-R) www.painedu.org/soapp.asp | Patient self-report | <10 minutes | 24 items | Requires licensing agreement |
| Current Opioid Misuse Measure (COMM) www.painedu.org/soapp.asp | Patient self-report | <10 minutes | 17 items | Requires licensing agreement |
| DIRE http://integratedcare-nw.org/DIRE_score.pdf | Clinician interview | <2 minutes | 7 items | |
| Alcohol Use Disorders Identification Test (AUDIT) | Clinician or patient self-report | <5 minutes | 10 items | |
| Screening for Mental Health Disorders | | | | |
| Patient Health Questionnaire 9 (PHQ-9) | Patient self-report | <5 minutes | 10 items | |
| GAD-7 http://www.mpho.org/resource/s/34008/GAD708.19.08Cartwright.pdf | Patient self-report | <5 minutes | 7 items | |
| PC-PTSD | Clinician interview | <5 minutes | 4 items | |
| *Except for the FRQ, all of the free, publicly available tools listed in this table have demonstrated good content, face, and construct validity in screening for risk of addiction and monitoring opioid therapy. Further validation studies and prospective outcome studies are needed to determine how the use of these tools predicts and affects clinical outcomes. | | | | |
| http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf | | | | |

PEG Pain Screening Tool

1. What number best describes your pain on average in the past week:

| | | | | | | | | | | |
|---------|---|---|---|---|--------------------------------|---|---|---|---|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| No pain | | | | | Pain as bad as you can imagine | | | | | |

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

| | | | | | | | | | | |
|--------------------|---|---|---|---|-----------------------|---|---|---|---|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Does not interfere | | | | | Completely interferes | | | | | |

3. What number best describes how, during the past week, pain has interfered with your general activity?

| | | | | | | | | | | |
|--------------------|---|---|---|---|-----------------------|---|---|---|---|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Does not interfere | | | | | Completely interferes | | | | | |

To compute the PEG score, add the three responses to the questions above, then divide by three to get a final score out of 10.

The final PEG score can mean very different things to different patients. The PEG score, like most other screening instruments, is most useful in tracking changes over time. The PEG score should decrease over time after therapy has begun.

<http://mytopcare.org/wp-content/uploads/2013/06/PEG-Pain-Screening-Tool1.pdf>

Two Item Chronic Pain Scale

Graded chronic pain scale: a two-item tool to assess pain intensity and pain interference

In the last month, on average, how would you rate your pain? Use a scale from 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"? *[That is, your usual pain at times you were in pain.]*

| | | | | | | | | | | |
|---------|---|---|---|---|-------------------------|---|---|---|---|----|
| No pain | | | | | Pain as bad as could be | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

In the last month, how much has pain interfered with your daily activities? Use a scale from 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities."

| | | | | | | | | | | |
|-----------------|---|---|---|---|-----------------------------------|---|---|---|---|----|
| No interference | | | | | Unable to carry on any activities | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

<http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf>

What are the best treatment strategies for patients?

Patient Case

- JM is a 53 y.o male recently discharged from the hospital following a ventral hernia repair.
- PMH: HLD, COPD, DM, and chronic low back pain
- Home medications:
 - atorvastatin 40 mg PO daily
 - tiotropium bromide inhaler 1 puff daily,
 - albuterol/ipratropium inhaler 1 puff every 6 h as needed
 - aspirin 81 mg PO daily
 - metformin 500 mg PO BID
 - morphine SR 30 mg PO BID
- Discharge Rx's:
 - morphine SR increased to 45 mg PO BID (#60)
 - oxycodone 10 mg PO q 6 h as needed for breakthrough pain (#60)

Pain

- **Definition:**
 - **Physical suffering or discomfort caused by illness or injury**
- **Types:**
 - **Somatic – skin, tissue, muscle pain**
 - sharp, stabbing
 - **Visceral – internal organ pain**
 - ache, pressure
 - **Neuropathic – nerve/nerve fiber damage or dysfunction**
 - burning, tingling

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Acute-pain-infographic.pdf>

Non-Opioid Analgesics

NSAIDs

Acetaminophen

Corticosteroids

NSAIDS

| | |
|-----------------------------|---|
| Mechanism | <ul style="list-style-type: none"> • Inhibition of cyclooxygenase (COX) which reduces prostaglandin synthesis • Anti-inflammatory and anti-pyretic actions • Non-selective vs. COX-2 selective |
| Medications in class | <ul style="list-style-type: none"> • Non-selective: ibuprofen, naproxen, aspirin, ketoprofen, indomethacin, ketorolac • COX-2 selective: celecoxib, meloxicam, diclofenac, etodolac |
| Types of pain | <ul style="list-style-type: none"> • Somatic/visceral, low to moderate pain, inflammatory processes, musculoskeletal |
| Precautions | <ul style="list-style-type: none"> • Cardiovascular disease • Risk of GI bleeding and/or ulceration • Caution in those with impaired renal function and the elderly |
| Relative cost | AWP: <\$10 to >\$220 for a 30 day supply |

Lexicomp. <https://online.lexi.com>. Accessed March 12, 2017.
Grosser T, Smyth E, FitzGerald GA. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. Accessed March 12, 2017.

Acetaminophen (APAP)

- **Mechanism:**
 - Not fully understood
 - Centrally acting analgesic which inhibits PG synthesis; works peripherally to block generation of nerve impulses
 - Anti-pyretic
- **Types of pain:** somatic/visceral, mild to moderate pain
- **Precautions:**
 - Hepatotoxicity concerns (max. daily dose: 4 g)
 - Hepatic impairment
 - Alcohol use (≥3 servings of alcohol per day)
- **Relative cost:** AWP: < \$10 for a 30 day supply

Lexicomp. <https://online.lexi.com>. Accessed March 12, 2017.
Grosser T, Smyth E, FitzGerald GA. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. Accessed March 12, 2017.

Corticosteroids

- **Mechanism:**
 - Indirect analgesia via reduction in inflammation
- **Medications in class:** prednisone, dexamethasone, hydrocortisone, methylprednisolone etc.
- **Type of pain:** somatic/visceral due to inflammation
- **Precautions:**
 - Avoid long term use
 - Adrenal suppression
 - Hyperglycemia and hypertension
 - Immunosuppression
- **Relative cost: AWP: <\$20 for a 30 day supply**

Lexicomp. <https://online.lexi.com>. Accessed March 12, 2017.
Grosser T, Smyth E, FitzGerald GA. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. Accessed March 12, 2017.

Corticosteroid Conversion

| Glucocorticoid | Approximate Equivalent Dose (mg) | Half-life (hr) |
|----------------------------|----------------------------------|----------------|
| Short-Acting | | |
| Cortisone | 25 | 8-12 |
| Hydrocortisone | 20 | 8-12 |
| Intermediate-Acting | | |
| Methylprednisolone | 4 | 18-36 |
| Prednisolone | 5 | 18-36 |
| Prednisone | 5 | 18-36 |
| Triamcinolone | 4 | 18-36 |
| Long-Acting | | |
| Betamethasone | 0.6 – 0.75 | 36-54 |
| Dexamethasone | 0.75 | 36-54 |

http://med.umkc.edu/docs/em/Corticosteroid_Table.pdf

Opioid Analgesics

Opioids

| | |
|-----------------------------|--|
| Mechanism | <ul style="list-style-type: none">• mu-opioid receptor agonist• Inhibition of ascending pain pathways, alters perception to pain |
| Medications in class | <ul style="list-style-type: none">• Morphine, hydromorphone, fentanyl, buprenorphine, oxycodone, oxymorphone, hydrocodone, tramadol, tapentadol, codeine |
| Types of pain | <ul style="list-style-type: none">• Somatic/visceral/neuropathic pain |
| Precautions | <ul style="list-style-type: none">• High abuse potential• CNS depression• Respiratory depression• Constipation |
| Relative cost | Variable, but relatively inexpensive if prescribed generic |

Lexicomp. <https://online.lexi.com>. Accessed March 12, 2017.
Yaksh TL, Wallace MS. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. Accessed March 12, 2017.

Opioid Conversion

| Drug | Oral dose (mg) | Parenteral dose (mg) |
|---------------|----------------|----------------------|
| Morphine | 10 | 30 |
| Hydromorphone | 7.5-8 | 1.5-2 |
| Oxycodone | 20-30 | - |
| Oxymorphone | 10 | 1 |
| Hydrocodone | 30-45 | - |
| Codeine | 100-130 | 200 |
| Fentanyl | 0.1 (100 mcg) | - |

Equianalgesic Dosing of Opioids for Pain Management. *Pharmacist's Letter*. 2015; 28(10): Detail- Document#: 310711. <http://www.pharmacistsletter.com>. Accessed March 15, 2017.

Alternative Agents

Anticonvulsants

Gabapentin

Pregabalin

Carbamazepine

Lamotrigine

Antidepressants

Tricyclic

Antidepressants

SSRIs/SNRIs

Calcium Channel Blockers

| | |
|-----------------------------|---|
| Mechanism | <ul style="list-style-type: none"> • Binds to calcium channels in the CNS which modulates release of neurotransmitters that have a role in analgesia |
| Medications in class | <ul style="list-style-type: none"> • Gabapentin (Neurontin, Gralise) • Pregabalin (Lyrica) |
| Types of pain | <ul style="list-style-type: none"> • Neuropathic pain (diabetic neuropathy, postherpetic neuralgia, etc.) • Pregabalin approved for fibromyalgia |
| Precautions | <ul style="list-style-type: none"> • Abuse potential • CNS depression • Dose reduction needed in renal impairment • Should not be abruptly discontinued |
| Relative cost | AWP: <\$50 to >\$600 for a 30 day supply |

Lexicomp. <https://online.lexi.com>. Accessed March 12, 2017 ■

Sodium Channel Inhibitors

| | |
|-----------------------------|--|
| Mechanism | <ul style="list-style-type: none"> • Inhibits Na channels and stabilizes neuronal membranes • Lamotrigine also inhibits release of glutamate |
| Medications in class | <ul style="list-style-type: none"> • Carbamazepine • Lamotrigine |
| Types of pain | <ul style="list-style-type: none"> • Neuropathic pain • Carbamazepine is first-line for Trigeminal Neuralgia |
| Contraindication | <ul style="list-style-type: none"> • Initiation within 14 days of MAOI use |
| Precautions | <ul style="list-style-type: none"> • Induction of liver enzymes (carbamazepine) → drug interactions • Carbamazepine: use with caution in CVD • Renal and hepatic impairment • Blood dyscrasias |
| Relative cost | AWP: >\$100 for 30 day supply |

Lexi-Drugs. Lexicomp. Wolters Kluwer. Hudson, Oh. Available at <https://online.lexi.com>. Accessed March 14, 2017.
McNamara JO. Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 12e New York, NY: McGraw-Hill. Accessed March 14, 2017.

Tricyclic Antidepressants (TCAs)

| | |
|-----------------------------|---|
| Mechanism | <ul style="list-style-type: none"> Inhibits reuptake of serotonin and norepinephrine |
| Medications in class | <ul style="list-style-type: none"> Amitriptyline Nortriptyline Imipramine/desipramine |
| Types of pain | <ul style="list-style-type: none"> Neuropathic pain Fibromyalgia Diabetic neuropathy |
| Precautions | <ul style="list-style-type: none"> Increased risk of suicidal thoughts/behavior Caution in elderly – anticholinergic side effects |
| Relative cost | AWP: \$10 - \$50 for 30 day supply |

Lexi-Drugs. Lexicomp. Wolters Kluwer. Hudson, Oh. Available at <https://online.lexi.com>. Accessed March 14, 2017.
O'Donnell JM, Shelton RC. *Goodman & Gilman's: The Pharmacological Basis of Therapeutics*, 12e New York, NY: McGraw-Hill. Accessed March 14, 2017.

Serotonin Norepinephrine Reuptake Inhibitors (SNRIs)

| | |
|-----------------------------|--|
| Mechanism | <ul style="list-style-type: none"> Inhibits reuptake of serotonin and norepinephrine |
| Medications in class | <ul style="list-style-type: none"> Duloxetine Venlafaxine |
| Types of pain | <ul style="list-style-type: none"> Neuropathic pain Fibromyalgia |
| Precautions | <ul style="list-style-type: none"> Increased risk of suicidal thoughts/behavior Increased risk of bleeding Hypertension |
| Relative cost | AWP: \$100 - \$200 for 30 day supply |

Lexi-Drugs. Lexicomp. Wolters Kluwer. Hudson, Oh. Available at <https://online.lexi.com>. Accessed March 14, 2017.
O'Donnell JM, Shelton RC. *Goodman & Gilman's: The Pharmacological Basis of Therapeutics*, 12e New York, NY: McGraw-Hill. Accessed March 14, 2017.

Other Analgesic Therapies

Skeletal Muscle Relaxants
Topical Analgesic Agents

Skeletal Muscle Relaxants

| | |
|-----------------------------|--|
| Mechanism | <ul style="list-style-type: none">• Baclofen - hyperpolarization of primary afferent fiber terminals → reduction of muscle spasticity• Cyclobenzaprine - Centrally acting, reduces tonic somatic motor activity |
| Medications in class | <ul style="list-style-type: none">• Baclofen• Cyclobenzaprine |
| Types of pain | <ul style="list-style-type: none">• Muscle spasms/spasticity |
| Precautions | <ul style="list-style-type: none">• Avoid abrupt discontinuation (baclofen) |
| Relative cost | AWP: \$80 - \$100 for 30 day supply |

Lexi-Drugs. Lexicomp. Wolters Kluwer. Hudson, Oh. Available at <https://online.lexi.com>. Accessed March 15, 2017

Topical Analgesic Agents

- **Capsaicin**
 - **Mechanism:**
 - Activates TRPV1 receptor → depolarization of neuron → inhibition of nociceptive nerve transmission
 - Depletion of substance P
 - **Types of pain:** neuropathic, muscle/joint pain
 - **Onset of action:** 2-4 weeks
- **Lidocaine**
 - **Mechanism:**
 - inhibition of the conduction of the nerve impulse
 - **Types of pain:** localized pain, somatic/neuropathic

Lexi-Drugs. Lexicomp. Wolters Kluwer. Hudson, Oh. Available at <https://online.lexi.com>. Accessed March 15, 2017

Patient Case

- **JM had a follow-up appointment on POD 14 with his surgeon who refused to refill his Rx for oxycodone**
- **JM is still complaining of pain and scheduled an appointment with his PCP**
- **Was JM's pain treated appropriately upon discharge?**

Patient Case

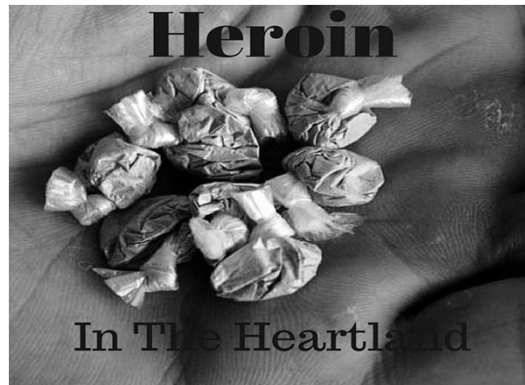
- JM had major abdominal surgery
 - Benefits exist with narcotic-sparing analgesia
 - Target musculoskeletal pain control
 - Opioid side effects lead to poorer outcomes and patient satisfaction
- Multimodal treatment approach
 - Ibuprofen 600 mg – 800 mg PO q 6 h scheduled
 - Acetaminophen 500 mg – 1000 mg PO q 6 h scheduled
 - Gabapentin 300 mg PO TID scheduled
 - Attempt to wean morphine SR back to 30 mg PO BID
 - Non-pharmacologic– PT, acupuncture, mindfulness, meditation

What should be considered treatment success?

- Reduction in pain AND increase in functionality
 - 30% improvement in pain and function has been considered clinically meaningful in low back pain patients
 - 35-45% decrease in acute post-operative pain was associated with reported acceptable improvement to patients

Ostelo RW, Deyo RA, Stratford P, et al. Spine 2008;33:90-4.
Gatchel RJ, Mayer TG, Choi Y, Chou R. Spine J 2013;13:889-93.

How can we recognize and prevent opioid addiction?



<https://www.pallorecovery.com/heroin-heartland-60-minutes-special>

Thoughts Over Time

- 1940 – 1980's – Opioids cause addiction
- 1990's – 2000's – Pain is complex and multifactorial; opioids are good for some types of pain
- 2016 – Opioids cause addiction

Journal of Palliative Medicine. 2016(19)4.
DOI: 10.1089/jpm.2016.0079

Know the Facts

- In 2014, more than 262 million opioid doses were dispensed in Ohio for the management of acute pain
- Prescription opioids remain a significant factor in unintentional overdose deaths in Ohio

<http://mha.ohio.gov/Default.aspx?tabid=828>

Heroin

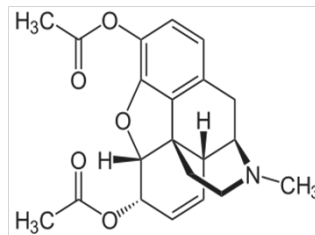
- Semisynthetic opioid derived from opium poppy
 - Mu opioid receptor agonist which bind to opioid receptors in the CNS
 - Kappa and delta - type activity
- Routes of administrations:
 - Snorted
 - Intravenous injection
 - Smoked/inhaled



https://en.wikipedia.org/wiki/List_of_opioids
<https://www.drugbank.ca/drugs/DB01452>

Heroin

- As heroin use has increased, so have heroin-related overdose deaths:
 - ✓ Quadrupled since 2010
 - ✓ Increased by 20.6% from 2014 - 2015, with nearly 13,000 people dying in 2015
 - ✓ Laced with carfentanil



https://en.wikipedia.org/wiki/Heroin#/media/File:Heroin_-_Heroin.svg

<https://www.cdc.gov/drugoverdose/data/heroin.html>

<http://time.com/4485792/heroin-carfentanil-drugs-ohio/>

Ohio's Approach to Fight Drug Abuse

- Cutting the pill supply
- Preventing drug abuse before it starts
 - *Start Talking!*
- Providing treatment and recovery support to those in need
- Saving lives through naloxone

<http://mha.ohio.gov/Portals/0/Acute%20Prescriber%20Guidelines%20FINAL%20PRINT.pdf>

Ohio Automated Rx Reporting System (OARRS)

- Created by Ohio Board of Pharmacy in 2006
- Access available for all prescribers and pharmacists
- Information on all outpatient controlled substance prescriptions
- Data reported every 24 hours and is maintained in a secure database
- Tools used to address drug diversion and abuse
 - Patient care tool
 - Drug epidemic early warning system
 - Drug diversion and insurance fraud investigative tool

<https://www.ohiopmp.gov/Portal/About.aspx>

Governor's Cabinet Opiate Action Team (GCOAT)

- Part of Ohio's effort to curb misuse and abuse of prescription pain medications and unintentional overdoses
 - Prescribing guidelines for outpatient management of acute pain (2016)
 - Prescribing guidelines for chronic pain > 12 weeks (2013)
 - Prescribing guidelines for emergency departments and acute care facilities (2012)

<http://mha.ohio.gov/Default.aspx?tabid=828>

GCOAT Actions – Positive Effect

- **Prescriber/pharmacist queries using OARRS increased from 778,000 in 2010 to 9.3 million in 2014**
- **Opioid doses dispensed to Ohio patients decreased by 42 million from 2012 to 2014**
- **Ohio patients receiving prescriptions for opioids and benzodiazepines at the same time dropped 8% from 2013 to 2015**

<http://mha.ohio.gov/Default.aspx?tabid=828>

Acute Pain Prescribing Guidelines

(outside of Emergency Departments)

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

Patient Presents with Acute Pain

① Pain Assessment:

- Medical history and physical examination, including pregnancy status
- Location, intensity, severity; and associated symptoms
- Quality of pain (somatic, visceral or neuropathic)
- Psychological factors, personal/family history of addiction



② Develop a Plan:

- Educate patient and family and negotiate goals of treatment
- Discuss risks/benefits of non-pharmacologic & pharmacologic therapies
- Set patient expectations for the degree and the duration of the pain

GOAL: Improvement of function to baseline as opposed to complete resolution of pain

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Acute-pain-infographic.pdf>

Acute Pain Prescribing Guidelines

(outside of Emergency Departments)

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

Options

| Non-Pharmacologic Treatment | Non-Opioid Pharmacologic Treatment | | | |
|--|------------------------------------|--|-----------------------------|---|
| <ul style="list-style-type: none"> Ice, heat, positioning, bracing, wrapping, splints, stretching Massage therapy, tactile stimulation, acupuncture/acupressure, chiropractic adjustment, osteopathic neuromusculoskeletal medicine Biofeedback Directed exercise such as physical therapy | Role in Therapy | Somatic (Sharp or Stabbing) | Visceral (Ache or Pressure) | Neuropathic (Burning or Tingling) |
| | First Line | Acetaminophen, NSAIDs, Corticosteroids | | Gabapentin/pregabalin/TCAs/SNRIs |
| | Alternatives | Gabapentin/pregabalin, skeletal muscle relaxants, SSRIs/SNRIs/TCAs | SNRIs/TCAs, dicyclomine | Anti-epileptics, baclofen, bupropion, low-concentration capsaicin, SSRIs, topical lidocaine |

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Acute-pain-infographic.pdf>

Acute Pain Prescribing Guidelines

(outside of Emergency Departments)

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

Opioid Pharmacologic Treatment

For All Opioids:

- Complete risk screening (e.g. age, pregnancy, high-risk psychosocial environment, personal/family history of substance use disorder).
- Provide the patient with the least potent opioid to effectively manage pain (e.g. APAP/codeine instead of oxycodone). Refer to Morphine Equivalence Table.
- Prescribe the minimum quantity needed with no refills.
- Consider checking OARRS for all patients who will receive an opioid prescription. (OARRS report is required for most prescriptions of 7 days or more.)
- Avoid prescribing long-acting opioids for acute pain (e.g. methadone, oxycodone).
- Use caution when prescribing opioids with patients on benzodiazepines and sedative-hypnotics or patients known to use alcohol.
- Discuss how to safely and effectively wean patient off opioid medication.
- Remind that it is a unsafe and unlawful to give away or sell their opioids.
- Discuss proper storage and disposal of opioid medications.
- Coordinate care and communication of complex patients with other clinicians.

Morphine Equivalence Table

Opioid Naive: Morphine Equivalence* Notable NSAIDs

Most Potent

Buprenorphine sublingual 42:1
Hydromorphone PO 4:1
Oxymorphone 3:1
Hydrocodone 1:1

Morphine 1:1

Meloxicam 0.67:1
Diclofenac 0.2:1

Codeine 0.15:1

Tramadol 0.1:1

Celecoxib 0.1:1

Least Potent

*Source: CDC, 5/2014

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Acute-pain-infographic.pdf>

Acute Pain Prescribing Guidelines

(outside of Emergency Departments)

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

14 Days (Key Checkpoint)

Reassess patient within an appropriate time NOT exceeding 14 days

If pain is unresolved, reassess:

- Pain, consider standardized tool (e.g. Oswestry Disability Index for back pain)
- Treatment method
- Context and reason for continued pain
- Additional treatment options, including consultation

Six Weeks (Key Checkpoint)

- If pain is unresolved:
- Repeat the prior step
- Refer to Chronic Pain Guideline

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Acute-pain-infographic.pdf>

Have “The Talk”

- **Be honest about pain medication misuse**
- **Start with assessment**
 - Pain level
 - Medication history
 - History of drug abuse (you/family/neighbors)
- **Work together to create a safe treatment plan**
- **Discuss expectations**

Chronic Pain Prescribing Guidelines

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

Chronic pain: pain that persists after reasonable medical efforts have been made to relieve the pain or cure its cause and that has continued for > 3 months

“Trigger Point” = 80 mg MED* (Ohio)

***The 80 mg MED is not an endorsement by any regulatory body or medical professional to utilize that dose or greater.**

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Guidelines-Chronic-Pain.pdf>

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ORIGINAL RESEARCH | 19 JANUARY 2010

Opioid Prescriptions for Chronic Pain and Overdose: A Cohort Study

Kate M. Dunn, PhD; Kathleen W. Saunders, JD; Carolyn M. Rutter, PhD; Caleb J. Banta-Green, MSW, MPH, PhD; Joseph O. Merrill, MD, MPH; Mark D. Sullivan, MD, PhD; Constance M. Weisner, DrPH, MSW; Michael J. Silverberg, PhD, MPH; Cynthia I. Campbell, PhD; Bruce M. Psaty, MD, PhD; Michael Von Korff, ScD

Results: 51 opioid-related overdoses were identified, including 6 deaths. Compared with patients receiving 1 to 20 mg/d of opioids (0.2% annual overdose rate), patients receiving 50 to 99 mg/d had a 3.7-fold increase in overdose risk (95% CI, 1.5 to 9.5) and a 0.7% annual overdose rate. Patients receiving 100 mg/d or more had an 8.9-fold increase in overdose risk (CI, 4.0 to 19.7) and a 1.8% annual overdose rate.

Conclusion: Patients receiving higher doses of prescribed opioids are at increased risk for overdose, which underscores the need for close supervision of these patients.

Chronic Pain Prescribing Guidelines

These guidelines are to be used as a clinical tool, but they do not replace clinician judgement.

- Non-opioid therapies first
- Avoid long-term and co-prescribing (benzo's)
- Press pause to "trigger points"
- Ensure patient safety
 - ✓ Informed consent
 - ✓ Functional status (4 A's)
 - ADL's, ADE's, Analgesia, Aberrant behavior
 - Progress toward treatment goals
 - OARRS as an additional check
 - Patient pain treatment agreement
 - Refer patient to pain specialist if needed
- Review Treatment Plan at "trigger point"
 - Assess addiction risk or mental health concerns

<http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Guidelines-Chronic-Pain.pdf>

What are limitations to implementing current recommendations?

Limitations

- **TIME**
- **Pain is and always will be objective**
- **Differing patient behaviors**
- **Hard to control outpatient setting**
- **Lack of resources**

Be Part of the Change

One person
dies
every



19 MINUTES

from drug overdose
in the United States

and this increasing trend
is driven by Rx painkillers.



Opioid pain relievers are
responsible for more
overdose deaths than
cocaine and heroin
combined.



Share this to help #EndMedicineAbuse.

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