OPIATES: THE GOOD, THE BAD & THE UGLY
MANAGING RISK OF PRESCRIBING OPIOIDS IN PRIMARY CARE
Opioid Solutions Summit August 29, 2017

Celia Woods, M.D. Ventura County Behavioral Health Alcohol & Drug Programs
Objectives

Describe the scope and nature of the opioid epidemic locally

Understand risk factors for accidental OD and ways of mitigating risk

Better understand how to interpret UDT results

Identify alternatives for pain management

Identify interventions for patients who may be using prescription medications for non-medical purposes
Opiates: The Good
Opiates: The Good

- Short term pain relief in acute trauma situations
- Post operative analgesia
- Analgesia in cancer and other severe conditions
Opiates: The Good

- Optimal pain management can improve functioning and quality of life for the 50 million Americans living with chronic pain

- Several studies showed that pain was unrecognized and undertreated in up to 50% of inpatients
2001: Joint Commission Standard

Assessment of pain should be as routine as checking other vital signs.
Talk about pain management with your Hemophilia Treatment Centre team.
Opiates: The Bad
Opiates: The Bad

Industry Mantra:
1. Addiction is rare in patients treated with prescription narcotics
   - this was based on a *letter to the editor* by Herschel Jick, published in the New England Journal of Medicine on January 10, 1980

2. Opioids are safe

3. Opiates are the best way to manage acute pain

HOWEVER....
Opiates: The Bad

...this contradicts what we now know:

Approximately 1 in 15 patients who receive opioids after surgery become chronic users.

6% of patients who received a **ONE DAY** supply of opioids post operatively were STILL on opioids 1 year later.

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CDC MMWR March 2017
Opiates: The Bad

In the Retrospective Cohort Study of Short Stay Surgery, patients receiving opioids within 7 days of surgery were 44% more likely to become long term opioid users within the year.

Alam A et al Archives of Internal Med 2012;172: 425-430
Opiates: The Bad

The United States Represents 5% of earth’s population but consumes:

- 55% of all morphine
- 56% of all hydromorphone
- 80% of all oxycodone
- 99% of all hydrocodone
Opiates: The Bad

- It is estimated that 23% of the U.S. workforce has used prescription drugs non-medically
- In a 2014 study, the Workers Compensation Research Institute examined 264,000 claims from 25 states: found that 65% to 85% of injured workers received opioids
- In 2015, the National Safety Council polled 1,014 adults: 427 (42%) reported having been prescribed an opioid painkiller within the previous three years
- Nearly half of these adults reported potentially unsafe activity while using an opioid:
  - 39% went to work on opioids
  - 35% drove a vehicle for work on opioids
  - 14% operated heavy machinery on opioids

Workers Compensation Research Institute: Interstate Variations in the Use of Narcotics 2014
Opiates: The Bad

Workers Compensation Data - the injured employee

- Opioids increase claim costs by **400%**
- Opioids **double** the chance of disability at one year
- Court Rulings: Now, when an Injured Worker overdoses, **EVERYONE** is responsible:
  - The Physician
  - The Employer
  - The WC Insurer

Workers Compensation Research Institute: Interstate Variations in the Use of Narcotics 2014
Opiates: The Ugly
For every 1 overdose death, there are...

10 treatment admissions for Rx abuse
26 ER visits for Rx misuse or abuse
108 people who abuse or are dependent
733 nonmedical users
Local Data- Ventura County 2012

Per CURES, in 2012:

- 554,858 prescriptions were written for opiates
- 465,744 prescriptions were written for sedative hypnotics
- 110,273 prescriptions were written for stimulants

...in Ventura County, which has a population of ~850,000
Local Data: Categories

Number of Deaths

- Alcohol
- Heroin
- Illicit drugs
- Rx drugs

Ventura County Behavioral Health

2008 2009 2010 2011 2012 2013 2014
In Ventura County:

- 13% of 9th graders and 20% of 11th graders say they have misused Rx painkillers
- 6% of 9th graders and 5% of 11th graders say they’ve used heroin
  
  – California Healthy Kids Survey 2014
Risk factors for accidental overdose

- 90 Morphine Milligram Equivalents (MME) per day
- Opioid use in combination with a benzodiazepine
- Opioid use in combination with carisoprodol (Soma)
- Controlled substance prescriptions from multiple providers
- History of mental illness
- History of a substance use disorder
CDC guidelines-March 2016

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC’s Guideline for Prescribing Opioids for Chronic Pain is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

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

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

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

LEARN MORE: www.cdc.gov/drugoverdose/prescribing/guidelines.html

VENTURA COUNTY BEHAVIORAL HEALTH
CDC Guidelines continued
CDC Guidelines-determining whether to initiate opioids for pain

1. Opioids are not first-line or routine therapy for chronic pain

2. Set goals for pain and function

3. Discuss expected benefits and risks
4. Start with short-acting opioids

5. Use caution increasing dosages; avoid or justify high dosages

6. Prescribe no more than needed

7. Re-evaluate benefits and risks within 4 weeks initially and at least every 3 months; reduce dose or taper and discontinue if needed
8. Assess risks and consider offering naloxone for overdose reversal
9. Check PDMP for other prescriptions, high total dosages
10. Check urine for other controlled substances
11. Avoid concurrent benzodiazepines and opioids
12. Arrange medication-assisted treatment for opioid use disorder
Clinical Interview: Pain & Treatment History

Description of pain

- Location
- Intensity
- Quality
- Onset/Duration
- Variations / Patterns / Rhythms

What relieves the pain?

What causes or increases pain?

Effects of pain on physical, emotional, and psychosocial function

Patient’s pain & functional goals

<table>
<thead>
<tr>
<th>Benefits Include</th>
<th>Risks Include</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Analgesia</td>
<td>• Overdose</td>
</tr>
<tr>
<td>(adequate pain control)</td>
<td>• Abuse by patient or household contacts</td>
</tr>
<tr>
<td>• Improved Function</td>
<td>• Misuse &amp; addiction</td>
</tr>
<tr>
<td></td>
<td>• Physical dependence &amp; tolerance</td>
</tr>
<tr>
<td></td>
<td>• Interactions w/ other medications &amp; substances</td>
</tr>
<tr>
<td></td>
<td>• Inadvertent exposure by household contacts, especially children</td>
</tr>
</tbody>
</table>

Clinical Interview: Pain & Treatment: Pain Medications

Past use

Current use
- Query state PDMP where available to confirm patient report
- Contact past providers & obtain prior medical records
- Conduct UDT

Dosage
- For opioids currently prescribed: opioid, dose, regimen, & duration
  - Important to determine if patient is opioid tolerant

General effectiveness

Non-pharmacologic strategies & effectiveness
Assess Risk of Abuse, Including Substance Use & Psychiatric Hx

Obtain a complete Hx of current & past substance use

- Prescription drugs
- Illegal substances
- Alcohol & tobacco
  - Substance abuse Hx does not prohibit treatment w/ ER/LA opioids but may require additional monitoring & expert consultation/referral
- Family Hx of substance abuse & psychiatric disorders
- Hx of sexual abuse

Social history also relevant

Employment, cultural background, social network, marital history, legal history, & other behavioral patterns
Role of Prescription Drug Monitoring Program (PMDP)

- Collection and analysis of controlled substance data
- Identification and investigation of illegal prescribing, dispensing and procurement
- Physician access can help decrease extent of doctor shopping
Are PDMPs effective?

“Mandatory provider review and pain clinic laws reduce the amount of opioids prescribed and overdose death rates”

Opioid prescribing declined more rapidly from 2010-2013 in states with mandates and pain clinic laws (10.6%) than states without (5.5%)

Dowell, et al Health Affairs, 2016
Are PDMPs effective?

Opioid MMEs (Morphine Milligram Equivalents) per state resident dropped 80.1 MME from 2006-2103 in states with PDMP mandates and pain clinic laws, but not in states without (p<0.05)

Dowell, et al Health Affairs, 2016
Rationale for Urine Drug Testing (UDT)

Help to identify drug misuse/addiction
- Prior to starting opioid treatment

Assist in assessing adherence during opioid therapy
- As requirement of therapy w/ an opioid
- Support decision to refer

*UDT frequency is based on clinical judgment*

Depending on patient’s display of aberrant behavior and whether it is sufficient to document adherence to treatment plan

Check state regulations for requirements
Main Types of UDT Methods

**Initial testing** w/ IA drug panels:
- Classify substance as present or absent according to cutoff
- Many do not identify individual drugs within a class
- Subject to cross-reactivity
- Either lab based or at POC

**Identify specific drugs** &/or metabolites w/ sophisticated lab-based testing; e.g., GC/MS or LC/MS*
- Specifically confirm the presence of a given drug
  - e.g., morphine is the opiate causing a positive IA*
- Identify drugs not included in IA tests
- When results are contested

* GC/MS = gas chromatography/mass spectrometry
  IA = immunoassay
  LC/MS = liquid chromatography/mass spectrometry
Detecting Opioids by UDT

Most common opiate IA drug panels

• Detect “opiates” morphine & codeine, but doesn’t distinguish
• Do not reliably detect semisynthetic opioids
  – Specific IA panels can be ordered for some
• Do not detect synthetic opioids (e.g., methadone, fentanyl)
  – Only a specifically directed IA panel will detect synthetics

GC/MS or LC/MS will identify specific opioids

• Confirm presence of a drug causing a positive IA
• Identify opioids not included in IA drug panels, including semisynthetic & synthetic opioids
• Identify opioids not included in IA drug panels, including semisynthetic & synthetic opioids
Interpretation of UDT Results

Positive Result

- Demonstrates recent use
  - Most drugs in urine have detection times of 1-3 d
  - Chronic use of lipid-soluble drugs: test positive for ≥1 wk

Does not diagnose

- Drug addiction, physical dependence, or impairment
- Does not provide enough information to determine
- Exposure time, dose, or frequency of use

Negative Result

Does not diagnose diversion

- More complex than presence or absence of a drug in urine

May be due to maladaptive drug-taking behavior

- Bingeing, running out early
- Other factors: eg, cessation of insurance, financial difficulties
Interpretation of UDT Results, cont’d

Be aware

- Testing technologies & methodologies evolve
- Differences exist between IA test menu panels vary
  - Cross-reactivity patterns
  - Maintain list of all patient’s prescribed & OTC drugs
  - Assist to identify false-positive result
  - Cutoff levels
- Time taken to eliminate drugs
  - Document time of last use & quantity of drug(s) taken
- Opioid metabolism may explain presence of apparently unprescribed drugs
Examples of Metabolism of Opioids

- Codeine → Morphine
- Hydrocodone
- Oxycodone → Oxymorphone
- 6-MAM* → Heroin
  - $t_{1/2}$ = 25-30 min
  - $t_{1/2}$ = 3-5 min

*6-MAM=6-monoacetylmorphine
Interpretation of UDT Results

Use UDT results in conjunction w/ other clinical information

Investigate unexpected results

- Discuss w/ the lab
- Schedule appointment w/ patient to discuss unexpected/abnormal results

Chart results, interpretation, & action

Do not ignore the unexpected positive result

- May necessitate closer monitoring &/or referral to a specialist

Minimizing Risk

• If opioids must be used, speak with patients about safe storage and disposal to minimize diversion risks

• Secure medication treatment agreements ahead of time

• Set standards for using urine drug toxicology tests. Normalize this by doing UDT on EVERYONE prescribed opioids (‘like testing blood sugar for diabetes’)
Medication Treatment Agreements

Set expectations for patient and provider
• No early refills
• All prescriptions from one doctor
• Random UDTs
  • Adjust dose only after discussion with doctor

Make it clear that a behavior pattern suggestive of aberrant use could result in taper and d/c of the narcotic

Signed by patient and provider
# Morphine Milligram Equivalents

<table>
<thead>
<tr>
<th>OPIOID</th>
<th>MME CONVERSION FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine tab/film</td>
<td>10</td>
</tr>
<tr>
<td>Butorphanol</td>
<td>7</td>
</tr>
<tr>
<td>Codeine</td>
<td>0.15</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>0.25</td>
</tr>
<tr>
<td>Fentanyl buccal, SL, lozenge</td>
<td>0.13</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
</tr>
<tr>
<td>Levorphanol tartrate</td>
<td>11</td>
</tr>
<tr>
<td>Meperidine</td>
<td>0.1</td>
</tr>
<tr>
<td>Methadone</td>
<td>3</td>
</tr>
<tr>
<td>Morphine</td>
<td>1</td>
</tr>
<tr>
<td>Nalbuphine</td>
<td>1</td>
</tr>
<tr>
<td>Opium</td>
<td>1</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.5</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3</td>
</tr>
<tr>
<td>Pentazozine</td>
<td>0.37</td>
</tr>
<tr>
<td>Tapentadol</td>
<td>0.4</td>
</tr>
<tr>
<td>Tramadol</td>
<td>0.1</td>
</tr>
</tbody>
</table>
## Morphine Milligram Equivalents

<table>
<thead>
<tr>
<th>Opioid</th>
<th>MME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine patch</td>
<td>12.6</td>
</tr>
<tr>
<td>Fentanyl film or oral spray</td>
<td>0.18</td>
</tr>
<tr>
<td>Fentanyl nasal spray</td>
<td>0.16</td>
</tr>
<tr>
<td>Fentanyl patch</td>
<td>1</td>
</tr>
</tbody>
</table>
Red Flags for Abuse or Diversion

- Pattern of calling for early refills
- Suspicious CURES report
- A NEGATIVE UDT
- Patient manipulates the dose on his/her own on more than one occasion
- Borrowing or lending pills to friends
- Refusal to consider tapering the medication, despite sustained functional improvement
- Refusal to consider non narcotic alternatives
Overdose prevention: Naloxone
Reducing risk-coprescribing naloxone

In a study at UCSF of 1985 patients receiving long term opiates for chronic pain, patients who were coprescribed naloxone had 47% fewer opiate related ED visits after 6 months (p= 0.005) after receipt of naloxone and 63% fewer opiate related ED visits 1 year (p = 0.001) versus peers who did NOT receive naloxone.

There was no net change in opioid dose over time between groups

~Coffin et al Annals of Internal Medicine, June 28, 2016
Overdose Education & Naloxone Distribution

- Effects on opioid use:

  - Seal et al., 2005 – active IDUs → same or decreased use
  - Doe-Simkins et al., 2014 – substance users → no overall change
  - Jones et al., 2017 – current & former heroin users → decreased use
  - Coffin et al., 2016 – primary care LOT pts → no change in dose
  - Wagner et al., 2010 – active IDUs → decreased use, increased tx enrollment
Reducing risk

People who simultaneously use opiates and benzodiazepines have 10x the risk of dying from an accidental overdose.

Multimodal therapy post operatively to reduce the use of opiates

Using NSAIDS, COX-2 Inhibitors and Acetaminophen as first line agents post operatively showed”

-24 h morphine consumption was down by 20-40%
-opioid related adverse events declined by 15-20%

~Elia N et al Anesthesiology 2009;103: 1296-1304
Consider tapering opiates when your patient:

- requests a dose reduction
- does not have clinically meaningful improvement in pain & function (ex: at least 30% improvement on the 3 item PEG scale)
- is on dosages > 50 MME/day w/o benefit
- opioids are combined with benzodiazepines
- shows signs of substance use disorder
- experiences overdose or other serious adverse events
- shows early signs for overdose risk such as confusion, sedation or slurred speech

-CDC Guidelines
CDC guidelines for tapering opiates

Tapering plans should be individualized and should minimize symptoms of opioid withdrawal while maximizing pain treatment with nonpharmacologic therapies and nonopioid medications.

In general:
CDC guidelines for tapering opiates

**GO SLOW!**

A decrease of 10% of the original dose per week is a reasonable starting point. Some patients who have taken opioids for a long time might find even slower tapers (e.g., 10% per month) easier.

*Discuss the increased risk for overdose if patients quickly return to a previously prescribed higher dose.*
CONSULT!

Coordinate with specialists and treatment experts as needed—especially for patients at high risk of harm such as pregnant women or patients with an opioid use disorder.

*Use extra caution during pregnancy due to possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal.*
CDC guidelines for tapering opiates

SUPPORT!

Make sure patients receive appropriate psychosocial support. If needed, work with mental health providers, arrange for treatment of opioid use disorder, and offer naloxone for overdose prevention.

*Watch for signs of anxiety, depression, and opioid use disorder during the taper and offer support or referral as needed.*
ENCOURAGE!

Let patients know that most people have improved function without worse pain after tapering opioids. Some patients even have improved pain after a taper, even though pain might briefly get worse at first.

Tell patients “I know you can do this” or “I’ll stick by you through this.”
CDC Guidelines for tapering opiates

Adjust the rate and duration of the taper according to the patient’s response.

Don’t reverse the taper; however, the rate may be slowed or paused while monitoring and managing withdrawal symptoms.

Once the smallest available dose is reached, the interval between doses can be extended and opioids may be stopped when taken less than once a day.
Non opioid pain management
Non-opioid alternatives to pain management

-- ice or heat
-topical (lidocaine patch 5%, capsaicin 0.075% cream, 8% patch)
- physical therapy, mobility training
- NSAIDS, COX 2 inhibitors, acetaminophen
- gabapentin, pregabalin
- tricyclic antidepressants
- duloxetine
- alpha 2 adrenergic receptor agonists (clonidine, dexmedetomidine)
- TENS units
- nerve blocks
- cognitive behavioral therapy
Multidisciplinary team approach

Primary care physician is the hub with these spokes:

- neurologist
- psychiatrist
- pain specialist
- anesthesiologist
- psychologist
- social worker
- physical therapist
- physiatrist
- surgeon
- nurse
Non-opioid pain management: Tricyclic Antidepressants

Amitriptyline (Elavil)

Dosage: 10 mg to 25 mg nightly
Titration: increase 10 to 25 mg q 3 to 7 days, max: 150 mg po qhs
Advantages: low cost, effective
Disadvantages: cardiovascular toxicity, anticholinergic effects, idiosyncratic metabolism
Plus/minus: sedating

Get baseline EKG for patients > 40 years of age
Non-opioid pharmacologic management: SNRIS

Duloxetine (Cymbalta)

Dosage: 20 to 30 mg po q day
Titration: increase weekly by 20 to 30 mg, to max of 60 mg per day*
Advantages: no cardiac or anticholinergic effects
Disadvantages: $$$, nausea, hypertension, liver toxicity
Plus/minus: can be activating
Non-opioid pharmacologic management: SNRIS

Venlafaxine (Effexor)

Dosage: 37.5 to 75 mg po q day
Titration: increase 37.5 to 75 mg/day q week, max: 225 mg po q day
Advantages: inexpensive, no cardiac or anticholinergic effects
Disadvantages: hypertension, nausea
Plus/minus: short acting and long acting forms available
Non-opioid pharmacologic management of pain: calcium channel alpha-2-delta ligands

Gabapentin (Neurontin)

Dosage: 100 to 300 mg per day, either at hs or tid
Titration: 100 to 300 mg every 7 days, divided dose, max: 3600 mg/d
Advantage: not habit forming, works for anxiety too, NOT hepatically metabolized
Disadvantages: SLOW titration, can take 2 months or more to achieve therapeutic dose, side effects such as sedation, confusion, motor impairment can be debilitating and affect some people at low dosage. Modify dose in renal insufficiency
Non opioid pharmacologic management of pain: calcium channel alpha-2-delta ligands

Pregabalin (Lyrica)

Dosage: 50 mg po tid or 75 mg po bid
Titration: 150 mg every 3 to 7 days, max 600 po q day mg
Advantages: FDA approved, no hepatic metabolism
Disadvantages: sedation, confusion, motor impairment, $$$
Plus/minus: can produce euphoria
Pain management = team work
CDC online training

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

8 modules which include modules on alternatives to opioids in treating chronic pain, motivational interviewing, dosing, titration and tapering of opioids, and assessing and addressing opioid use disorder.
To refer a patient for substance use disorder treatment

Call VC ADP at 805-981-9200

QUESTIONS?

Celia.Woods@ventura.org
Patrick.Zarate@ventura.org