Opioid Risk Assessment, Mitigation, and Management

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Educational Objectives

At the conclusion of this activity participants should be able to:

- Describe universal precautions and their role in opioid therapy
- Review monitoring and documentation strategies for opioid therapy
- Explain the fundamental principles of urine drug testing and interpretation
- List the differential diagnosis for aberrant drug related behavior
- Describe when naloxone co-prescription should be considered
45 year old man with hypertension, heart failure, and tobacco use who has been prescribed high dose opioids for chronic, non-specific testicular pain after a vasectomy 15 years ago and mechanical low back pain. You are seeing him for the first time after his previous PCP retired.

- Current total morphine equivalent dose prescribed is 390mg per day.
- He is also prescribed valium 5mg BID for muscle spasms.
- Prior medical records are sparse.
- Review of the prescription drug monitoring program show several early prescriptions over the last 3 months from his cardiologist who had agreed to prescribe for him while he found a new PCP.
- Patient tells you he has a family history of alcoholism and a personal history of gambling addiction.
Universal Precautions in Pain Medicine

Part of an Office Controlled Substance Policy

• Predicting opioid misuse is imprecise
  ▪ Protects all patients
  ▪ Protects the public and community health

• Consistent application of precautions
  ▪ Takes pressure off provider
  ▪ Reduces stigmatization of individual patients
  ▪ Standardizes system of care

• Resonant with expert guidelines
  ▪ American Pain Society/American Academy of Pain Medicine
  ▪ American Society of Interventional Pain Physicians
  ▪ Federation of State Medical Boards
  ▪ Canadian National Pain Centre
The Opioid Use Continuum

- Addicted (SUD)
- Substance abusers
- Recreational users
- Self-treaters
- Nonmedical opioid users
- Pain patients
- Adherent
- Chemical copers
- Substance abusers
- Addicted (SUD)
Opioid Misuse in Primary Care

- Likely under recognized
- Published rates of prescription opioid misuse range from 4-26%\(^1-4\)
- In 2 hr interviews with 801 patients prescribed opioids by primary care physicians\(^2\):
  - 26% purposeful sedation
  - 39% increasing dose w/o prescription
  - 8% obtaining from other physicians
  - 18% use for purposes other than pain
  - 20% drinking alcohol to relieve pain
  - 12% hoarding pain medications

Common Universal Precautions

- Comprehensive pain assessment including opioid risk assessment
- Formulation of pain diagnosis/es
- Opioid prescriptions should be considered a test or trial; continued or discontinued based on assessment and reassessment of risks and benefits
  - Decisions to continue or discontinue opioid therapy should be made regularly (i.e., every 2-3 months)
- Regular face-to-face visits
- Clear documentation

Federation of State Medical Boards Model Policy 2013. [www.fsmb.org/rrpol_policydocs.html](http://www.fsmb.org/rrpol_policydocs.html)
Franklin GM. *Neurology*. 2014; 83:1277-1284
Common Universal Precautions

- **Patient Prescriber Agreements (PPA)**
  - Informed Consent (goals and risks)
  - Plan of Care
  - Signed by both patient and prescriber
  - Serves as a Patient Counseling Document
  - Efficacy not well established but no evidence of a negative impact on patient outcomes

- **Monitoring** for opioid adherence, opioid use disorder, and diversion
  - Urine drug testing
  - Pill counts
  - Prescription Drug Monitoring Program (PDMP) data

References:
- Franklin GM. Neurology. 2014; 83:1277-1284
PPA Informed Consent

Realistic Goals
- Reduce pain, not eliminate
- Increase function (individualized and SMART goals)
  - Specific
  - Measureable
  - Action-oriented
  - Realistic
  - Time-sensitive

Potential Risks
- Side effects, physical dependence
- Drug interactions/over-sedation
- Potential for impairment e.g., driving
- Opioid use disorder, overdose
- Pregnancy
  - Significant risk of Neonatal Abstinence Syndrome
- Possible hyperalgesia (increased pain)
- Victimization by others seeking opioids

PPA Plan of Care

See also ACP Quality Connect: Chronic Pain Controlled Substance Agreements Video by Gregory A. Hood, MD, FACP

- Engagement in other recommended treatments
- Polices – monitoring, refills
- Permission to communicate with key others
- No illegal drug use, avoid sedative use
- Notifying provider of all other medications and drugs
- Discuss birth control, periodic monitoring for pregnancy
- Use as directed (dose, no adulteration of pills or patches, schedule, guidance on missed doses)
- Safe storage (away from family, visitors, pets)
- Safe disposal (read product specific information for guidance)
- No diversion, sharing or selling, protect from theft
Discussing Monitoring

- Review the personal and public health (community health) risks of opioid medications
- Discuss your responsibility to look for early signs of harm
- Discuss agreements, pill counts, drug tests, prescription drug monitoring as ways that you are helping to protect patient from getting harmed by medications
  - ACE Inhibitor – renal functional analogy
- Use consistent approach, but set level of monitoring to match risk of opioid use disorder
Implementing Universal Precautions in Pain Medicine

Use a Health-Oriented, Risk Benefit Framework

NOT...

- Is the patient good or bad?
- Does the patient deserve opioids?
- Should this patient be punished or rewarded?
- Should I trust the patient?

RATHER...

Do the benefits of opioid treatment outweigh the untoward effects and risks for this patient (or society)?

Judge the opioid treatment NOT the patient

UNIVERSAL PRECAUTIONS IN PRACTICE
How do you determine level of monitoring?

High Risk: more frequent monitoring

Medium Risk

Low Risk: less frequent monitoring
Opioid Misuse Risk Stratification

How should it be used?

**Discuss level of concern with patient**

- “Despite being in recovery from alcoholism, you are at higher risk for developing problems with the opioid pain medication.”

**Level of monitoring that should be implemented**

- Frequency of visits, urine drug testing, etc.
- High risk patients may need to agree to random call-backs

**Need for pain and/or addiction consultant**

- If available

**Some patients may be too risky for opioids analgesics**

- e.g., patient with recent opioid use disorder
Opioid Misuse Risk Screening Tools

- **SOAPP**: Screener & Opioid Assessment for Patients w/ Pain
- **ORT**: Opioid Risk Tool
- **STAR**: Screening Tool for Addiction Risk
- **SISAP**: Screening Instrument for Substance Abuse Potential
- **PDUQ**: Prescription Drug Use Questionnaire

- No “gold standard”
- Lack rigorous testing
### Opioid Risk Tool (ORT)

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family history of substance abuse</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Illegal drugs</td>
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<td>3</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td>4</td>
<td>4</td>
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<tr>
<td><strong>Personal history of substance abuse</strong></td>
<td></td>
<td></td>
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<tr>
<td>Alcohol</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Illegal drugs</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Age between 16-45 years</strong></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>History of preadolescent sexual abuse</strong></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Psychological disease</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADHD, OCD, bipolar, schizophrenia</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Depression</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Scoring

Webster LR, Webster RM. Pain Medicine, 2006
## CASE: Opioid Risk Tool (ORT)

<table>
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<td>3</td>
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<tr>
<td>Prescription drugs</td>
<td>4</td>
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</tr>
<tr>
<td><strong>Personal history of substance abuse</strong></td>
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<td>Alcohol</td>
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<td>3</td>
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</tr>
<tr>
<td>Depression</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Scoring**

TOTAL = 5
Case: Level of Risk Assessment

- Opioid Risk Tool Total = 5
- Does not take into account
  - Personal history of gambling problem
  - Early refill requests
  - High opioid dose
  - Co-prescription of benzodiazepines
  - Apparent poor benefit of opioids and poor pain coping
- All together, risk is assessed to be HIGH
- Your monitoring approach
  - 14 day prescriptions with no refills
  - Urine drug testing every 1-2 months
  - Random Pill Counts
  - Close monitoring of prescription drug monitoring program with refills
## Example Monitoring Approach

See also [ACP Quality Connect: Chronic Pain Minimizing the Risk of Abuse](#) by Gregory A. Hood, MD, FACP

<table>
<thead>
<tr>
<th>Patient Provider Agreement</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Once every other year</td>
<td>Once every other year</td>
<td>Once year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pain Visit with Functional Goal &amp; Side Effect Assessment</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Every 3-6 months</td>
<td>Every 3 months</td>
<td>Every month – 2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Random Urine Drug Testing</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Every 6-12 months</td>
<td>Every 6 months</td>
<td>Every few weeks to month</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pill Count</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Once year</td>
<td>Every 6 months</td>
<td>Monthly to semi-monthly</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prescription Refill Allowance</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28 days</td>
<td>28 days</td>
<td>7-14 days</td>
</tr>
</tbody>
</table>
MONITORING STRATEGIES

See also ACP Quality Connect: Chronic Pain Minimizing the Risk of Abuse by Gregory A. Hood, MD, FACP
Office Visit Monitoring

Monitoring for:

- Analgesia
- Activities
- Adverse effects
- Aberrant behaviors
- Adherence
- Affect

Also:

- Review opioid use
  - How is patient actually using prescribed opioids?
    - 24-hour inventory
    - Objective information
      - Signs of medication misuse
      - Prescription Drug Monitoring Program
      - Urine drug tests
      - Pill counts
- Revise treatment as indicated

Urine Drug Tests

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, adulteration, other error

Consult toxicologist/clinical pathologist before acting if patient disputes findings

Dedicated deceivers can beat the system
Why Drug Test?

Self-reported drug use among patients with pain is unreliable

Behavioral observations detects only some problems

May improve adherence (e.g., decreased illicit drug use)

Evolving standard of care
- FSMB 2013
Introducing UDT

• As part of treating pain with opioids, I order urine tests to help me understand how safe they are for patients.
• The test measures a number of medications and drugs that could interfere with your treatment.
• This is something I do with ALL patients on these medications and it doesn’t mean that I don’t trust you.
• If I find something unexpected, we’ll talk about it and work together to address it.
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-off levels
  - Risk of false positives due to cross reactions

All unexpected findings should be sent for confirmation by GC/MS (Gas Chromatography/Mass Spectroscopy)

Urine Drug Testing

• **GC/MS confirmation**
  - Identifies specific molecules
  - Sensitive and specific
  - More expensive
  - Must be aware of opioid metabolism to interpret

• **NOTE:** GC/MS measurement of urine drug levels is not a valid method of determining the amount of opioid ingested

Opioids

Natural (Opiates) and Semisynthetic

- Morphine
- Codeine
- Oxymorphone
- Hydrocodone
- Oxycodone
- Hydromorphone

Synthetic

- Methadone
- Meperidine
- Fentanyl

From prior PCSS-O presentation
## Typical Detection Time in Urine

See also: [Urine Drug Testing Appendix](#)

<table>
<thead>
<tr>
<th>Medication/Substance</th>
<th>Common Detection Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamine</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Barbiturate (short-acting)</td>
<td>24 hours</td>
</tr>
<tr>
<td>Barbiturate (long-acting)</td>
<td>Up to 21 days</td>
</tr>
<tr>
<td>Benzodiazepine (short-acting)</td>
<td>3 days</td>
</tr>
<tr>
<td>Benzodiazepine (long-acting)</td>
<td>Up to 30 days</td>
</tr>
<tr>
<td>Cocaine metabolites</td>
<td>1-4 days</td>
</tr>
<tr>
<td>Marijuana (single use)</td>
<td>3 days</td>
</tr>
<tr>
<td>Marijuana (moderate use—4x/week)</td>
<td>5-7 days</td>
</tr>
<tr>
<td>Marijuana (daily use)</td>
<td>10-15 days</td>
</tr>
<tr>
<td>Marijuana (long-term)</td>
<td>&gt;30 days</td>
</tr>
<tr>
<td>Opioids (codeine, hydrocodone, morphine, etc)</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Opioids (heroin)</td>
<td>1-3 days</td>
</tr>
</tbody>
</table>
Potential Harms of Urine Drug Testing

- Incorrect interpretation of urine drug tests could result in adverse consequences
  - Unwarranted discontinuation of opioids
  - Damage to physician-patient relationship
- Potential for false reassurance
  - Tampering
  - Alteration of behavior in anticipation of urine drug testing
- More evidence needed to understand the effects of urine drug testing on patient outcomes
Urine Drug Testing Pearls

- Oxycodone and synthetic opioids do not show up as “opiates”
- Methadone needs specific methadone test
- Oxycodone and oxymorphone need specific test
- Fentanyl needs specific fentanyl test
- Certain drugs may cause false positives on screening, but not gas chromatography confirmation
- Benzodiazepines may be false negative
Urine Drug Testing: Step 1

- Anticipate the results of your test
  - Identify which medications your patient is taking
  - When did patient last take his/her medications?
  - Document information in your note

Step 2: Select the Appropriate Test

- **Screening**
  - Panel or individual drugs
  - Point of care vs laboratory

- **Confirmation**
  - Automatic reflex on positives
  - For all positive and negative tests
  - Only when clinician requests

Step 3: Assess Specimen Validity

- Assess color
- Temperature 90-100 F.
- Urine pH ranges 4.5-8.5
- Creatinine concentration should be >20 mg/dL (<20 mg/dL is dilute, < 5mg/dL is not human specimen).
- Specific gravity

Step 4: Compare to Expected Results

<table>
<thead>
<tr>
<th>Drug</th>
<th>Screening: Opiate immunoassay</th>
<th>Confirmation: GC/MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>Positive</td>
<td>Codeine, Morphine</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Negative</td>
<td>Fentanyl</td>
</tr>
<tr>
<td>Heroin</td>
<td>Positive</td>
<td>Morphine</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>Positive</td>
<td>Hydrocodone, hydromorphone</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Positive</td>
<td>Hydromorphone</td>
</tr>
<tr>
<td>Methadone</td>
<td>Negative</td>
<td>Methadone</td>
</tr>
<tr>
<td>Morphine</td>
<td>Positive</td>
<td>Morphine, Codeine</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Negative</td>
<td>Oxycodone, Oxymorphone</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>Negative</td>
<td>Oxymorphone</td>
</tr>
</tbody>
</table>

## Differential Diagnosis

<table>
<thead>
<tr>
<th>UDT Result</th>
<th>Differential for Unexpected Results</th>
</tr>
</thead>
</table>
| **Positive** | Use of non-prescribed medications  
Use of illicit drugs  
Use of previously prescribed medications (hoarding)  
Cross-reaction (food, OTC, herbal products)*  
Contamination  
Laboratory error |

| **Negative** | Diversion  
Didn’t take within time frame to make test positive (ran out early, prn med, etc.)  
Fast metabolizer  
Laboratory processing error  
Extreme dilution of urine  
Malabsorption  
Hoarding/Binging |

*Should occur only on screen, and not on confirmatory test with exception of poppy seeds.*
Case

- Patient is prescribed morphine and valium
  - Screening Expected results: + opiates, + benzodiazepines
  - GC/MS results: + morphine, + codeine, + diazepam

- If patient were prescribed oxycodone
  - Screening Expected results: + oxycodone, + benzodiazepines (negative opiates)
  - GC/MS results: + oxycodone, + oxymorphone, + Diazepam
### Pill Counts

**Objective**
- Confirm medication adherence
- Minimize diversion

<table>
<thead>
<tr>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 day supply (rather than 30 days)</td>
</tr>
<tr>
<td>Prescribe so that patient should have residual medication at appointments</td>
</tr>
<tr>
<td>Ask patient to bring in medications at each visit</td>
</tr>
<tr>
<td>For identified risks or concerns, can request random call-backs for immediate counts</td>
</tr>
</tbody>
</table>
Prescription Drug Monitoring Programs (PDMP)

- Statewide electronic database on dispensed controlled substance prescriptions
- Prescription data available to prescribers and pharmacists (usually for the past year, and including information on date dispensed, patient, prescriber, pharmacy, medicine, and dose)
- A substantially underutilized resource
- 22 states now mandate use before writing for controlled substances (as of June 2014)
- Several studies* suggest association between PDMP use and positive outcomes related to improving prescribing and reducing prescription drug abuse

Haffajee RL et al. Mandatory use of prescription drug monitoring programs. JAMA. 2015
Discussing Monitoring

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

Use consistent approach (Universal Precautions)

BUT apply it individually to match risk
Monitoring is a lot of work…
Engage office staff

• Educate all staff on protocols and policies
  ▪ How and when prescriptions will be dispensed
  ▪ Appointments, program expectations
  ▪ Pain management and addiction

• Be consistent: send the same message

• Engage the entire team to
  ▪ Help educate and monitor patients
  ▪ Remind patients of policy and treatment agreement
  ▪ Manage refills
  ▪ Monitor for adherence
MANAGING ABERRANT DRUG RELATED BEHAVIORS
Case

• Patient calls to request a refill 8 days early stating that his daughter is in the hospital in another state.

• had been in the hospital for 3 days during his current prescription, so refill would actually be 11 days early.

• What do you do?
Patients often have unrealistic expectations that...

...lead to the belief that opioids will always relieve pain, therefore more opioids equal more relief

...leading to unsanctioned dose escalation or continued requests for higher doses

Re-educate about realistic goals and potential opioid risks

Monitoring for Opioid Misuse

- Patient questionnaire
  - Current Opioid Misuse Measure (COMM)
    Self-administered 17 items
- Other strategies
  - Pill counts (scheduled vs random)
  - Urine drug tests (scheduled vs random)
  - PDMP data
- History from “reliable” family members
  - Beware of family members with secondary gain for giving inaccurate information
Aberrant Medication-Taking Behaviors

Differential Diagnosis (DDx)

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

Drug Seeking
- Opioid use disorder/Addiction
- Other psychiatric diagnosis
- Criminal intent (diversion)

Pain Relief and Drug Seeking

For example, patient with chronic pain, with co-morbid addiction, taking some for pain and diverting some for income

Opioid Analgesia Tolerance

- Right shift of the dose-response curve
  - Analgesic tolerance demonstrated in animal models
  - Human studies find opioid doses stabilize long-term
  - Therefore, assume opioid analgesic tolerance is not common but may happen
- Increased dose overcomes decreased analgesia

DDx: Pain Relief Seeking

Opioid-Induced Hyperalgesia

- Enhanced pain sensitivity to same opioid dose
- Paradoxically more opioid will worsen pain
- Central and peripheral sensitization of pronociceptive process
- Increased dose may improve analgesia but only temporarily

Lee M et al. *Pain Physician* 2011;14:145-161
Eisenberg E et al. *J Pain Symptom Manage.* 2015
Opioid Use Disorder (OUD)/Addiction

- *Tolerance
- *Withdrawal
- Use in larger amounts or duration than intended
- Persistent desire to cut down
- Giving up interests to use opioids
- Great deal of time spent obtaining, using, or recovering from opioids
- Craving or strong desire to use opioids
- Recurrent use resulting in failure to fulfill major role obligations
- Recurrent use in hazardous situations
- Continued use despite social or interpersonal problems caused or exacerbated by opioids
- Continued use despite physical or psychological problems

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

*This criterion is not considered to be met for those individuals taking opioids solely under appropriate medical supervision
Addiction

Clinical syndrome presenting as...

- Loss of Control
- Compulsive use
- Continued use despite harm

Addiction is NOT the same as Physical Dependence

Aberrant Medication Taking Behaviors (pattern and severity)

Concerning Behaviors for Opioid Use Disorder

**Spectrum: Yellow to Red Flags**

- Requests for increase opioid dose
- Requests for specific opioid by name, “brand name only”
- Non-adherence w/other recommended therapies (e.g., PT)
- Running out early (i.e., unsanctioned dose escalation)
- Resistance to change therapy despite AE (e.g. over-sedation)
- Deterioration in function at home and work
- Non-adherence w/monitoring (e.g. pill counts, UDT)
- Multiple “lost” or “stolen” opioid prescriptions
- Illegal activities – forging scripts, selling opioid prescription

Case: Responding to the Early Refill

- See patient at an office visit
- Perform Urine Drug Test
- Perform Pill Count
- Confirm story with a family member

Goals:
  - Re-establish goals and expectations
  - Reassess risks and benefits
MEDICATIONS TO AVOID WITH OPIOIDS
High Risk Medications to Avoid

- Alcohol – advise against *any* use
  - May rapidly release opioid (dose dump) when certain ER/LA opioids are exposed to alcohol
- Benzodiazepines and sedative hypnotics
  - Highest risk of unintentional overdose
  - Potentiating effect on sedation and respiratory depression
- Certain muscle relaxers (Carisoprodal)
- Marijuana
- Medications that interact with methadone
  - Multiple medications
- Medications that interact with tramadol or tapentadol
  - SSRI or SNRIs
ABUSE DETERRENT FORMULATIONS
Abuse-deterrent Opioid Formulations

• Abuse deterrent opioid formulations recently approved by FDA or undergoing FDA approval process
  ▪ Designed to be tamper-resistant or co-formulated with medications that reverse opioid effects or produce noxious side effects when tampered with
  ▪ Effectiveness for reducing misuse and improving clinical outcomes yet to be established
  ▪ Likely to be primarily effective in patients who crush or inject opioids
  ▪ Some patients may seek other prescription or illicit opioids\textsuperscript{a}

\textsuperscript{a}Cicero et al. NEJM 2012
Abuse Deterrent/Resistant Formulations

Currently there are **NO PROVEN** abuse deterrent/resistant opioids or formulations


Larochelle MR et al. JAMA Intern Med. 2015;175(6):978-987
NALOXONE CO-PRESCRIPTION
SLIDES ADAPTED FROM
DR. PHILLIP COFFIN
Overdose Risk Factors

- Prior overdose
  - Overdose in any 1 year predicts a 6-fold increased likelihood of overdose in next year
  - Any history of opioid overdose predicts a 4-fold increased risk of mortality
- Concomitant use of other substances
  - Sedatives, alcohol, cocaine
- Reduced tolerance

Opioid Overdose Risk Management Plan

• Consider in the following situations
  ▪ High dose opioids (MED >50 mg)
  ▪ History of opioid overdose (intentional or unintentional)
  ▪ Use of benzodiazepines or other sedative hypnotics
  ▪ Opioid use disorder
  ▪ Heroin use
Concept of Lay Naloxone

- Overdose usually witnessed
- Death takes a while
- EMS not routinely accessed
- Naloxone is safe and effective
- May decrease the need for advanced respiratory support
- Possible behavior change
Naloxone and the Law

- Naloxone is not a controlled substance; no different than prescribing other routine medications to your patients
- Some states have added legal protections
  - Prescribing to a bystander
  - Administration of naloxone by lay bystanders
  - Prescribing or dispensing based on standing order or directly from pharmacies
How to Prescribe Naloxone

• Injectable
  ▪ Vial
    – Naloxone 0.4mg/1mL IM if overdose
    – IM syringes (3 mL 25g 1” syringes are recommended)
  ▪ Autoinjector: Evzio®, 0.4mg naloxone

• Intranasal
  ▪ Naloxone 2mg/2mL prefilled syringe, spray ½ into each nostril if overdose
  ▪ MAD (Mucosal Atomization Device) nasal adaptor
<table>
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<tr>
<th></th>
<th>Injectable (and intranasal- IN) generic&lt;sup&gt;3&lt;/sup&gt;</th>
<th>Intransal branded&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Injectable generic&lt;sup&gt;3&lt;/sup&gt;</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
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<tr>
<td><strong>Brand name</strong></td>
<td>Narcan Nasal Spray</td>
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<td>Evzio Auto-Injector</td>
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<td><strong>FDA approved</strong></td>
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<tr>
<td><strong>Labeling includes instructions for layperson use</strong></td>
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<td><strong>Layperson experience</strong></td>
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<td><strong>Assembly required</strong></td>
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<tr>
<td><strong>Fragile</strong></td>
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<tr>
<td><strong>Can titrate dose</strong></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Strength</strong></td>
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<td>0.4 mg/mL OR 0.4 mg/10 mL</td>
<td>0.4 mg/mL</td>
<td>0.4 mg/0.4 mL</td>
</tr>
<tr>
<td><strong>Total volume of kit/package</strong></td>
<td>4 mg/4 mL</td>
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<td>0.8 mg/2 mL OR 0.8 mg/10 mL</td>
<td>0.8 mg/2 mL</td>
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<td><strong>Cost/kit</strong></td>
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<td>$5</td>
<td>$1</td>
<td>$1</td>
<td>$5</td>
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<td><strong>Refills</strong></td>
<td>Two</td>
<td></td>
<td>Two</td>
<td>Two</td>
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</table>

Information downloaded from http://prescribetoprevent.org/
Talking about “opioid safety”

- Prescription opioid users, including former heroin users, may not perceive their own “overdose” risk
- Consider focusing on “opioid safety” with language such as
  - Opioids can sometimes slow or even stop your breathing
  - Naloxone is the antidote to opioids – to be [sprayed in the nose/injected] if there is a bad reaction where you can’t wake up
  - Naloxone is for opioid medications like an Epi-Pen is for someone with an allergy
Resources for providers

- Naloxone Program Implementation Manual
- AHRQ description of Massachusetts naloxone program
- Clinic-based prescribing information and guidelines
  - [www.prescribetoprevent.org](http://www.prescribetoprevent.org)
  - [www.csam-asam.org/naloxone-resources](http://www.csam-asam.org/naloxone-resources)
- Pharmacy resources: [www.stopoverdose.org](http://www.stopoverdose.org)
- Advocacy film and materials Reach for me: Fighting to end the American Drug Overdose Epidemic: [www.reach4me.org](http://www.reach4me.org)
- Research updates and other overdose-related news: [www.overdosepreventionalliance.org](http://www.overdosepreventionalliance.org)

• Evaluating a patient’s risk of opioid misuse should be done universally on all patients prescribed long term opioids.
• The level and frequency of opioid monitoring depends on his or her initial risk evaluation.
• Opioid monitoring involves several steps and helps determine whether the benefits of ongoing treatment outweigh the risks.
• Urine drug testing is a key monitoring component.
• Naloxone co-prescription should be considered in patients prescribed high dose opioids.
• See also ACP Caring for Patients with Chronic Pain Treating with Opioids: Balancing the Benefits and Risks: Continuing Opioids Video by Christopher W. Shanahan, MD, MPH
References

- Federation of State Medical Boards Model Policy 2013. www.fsmb.org/grpol_policydocs.html
References

PCSS-O Colleague Support Program and Listserv

• PCSS-O Colleague Support Program is designed to offer general information to health professionals seeking guidance in their clinical practice in prescribing opioid medications.

• PCSS-O Mentors comprise a national network of trained providers with expertise in addiction medicine/psychiatry and pain management.

• Our mentoring approach allows every mentor/mentee relationship to be unique and catered to the specific needs of both parties.

• The mentoring program is available at no cost to providers.

For more information on requesting or becoming a mentor visit:  
www.pcss-o.org/colleague-support

• Listserv: A resource that provides an “Expert of the Month” who will answer questions about educational content that has been presented through PCSS-O project. To join email: pcss-o@aaap.org.
PCSS-O is a collaborative effort led by American Academy of Addiction Psychiatry (AAAP) in partnership with: Addiction Technology Transfer Center (ATTC), American Academy of Neurology (AAN), American Academy of Pain Medicine (AAPM), American Academy of Pediatrics (AAP), American College of Physicians (ACP), American Dental Association (ADA), American Medical Association (AMA), American Osteopathic Academy of Addiction Medicine (AOAAM), American Psychiatric Association (APA), American Society for Pain Management Nursing (ASPMN), International Nurses Society on Addictions (IntNSA), and Southeast Consortium for Substance Abuse Training (SECSAT).

For more information visit: [www.pcss-o.org](http://www.pcss-o.org)
For questions email: [pcss-o@aaap.org](mailto:pcss-o@aaap.org)

Twitter: [@PCSSProjects](https://twitter.com/PCSSProjects)

Funding for this initiative was made possible (in part) by Providers' Clinical Support System for Opioid Therapies (grant no. 5H79TI025595) from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.