EXPERT MONITORING FOR SAFE OPIOID PRESCRIBING
American Society for Pain Management Nursing & Cordant Health Solutions
Mary Milano Carter, MS, NP-BC, RN-BC
Theresa Grimes, PhDc, FNP-BC, RN-BC, CCRN

Educational content developed in collaboration with Cordant Health Solutions.
The following statements should not be considered legal advice. You should not consider any statement as an interpretation of the law; they are for informational purposes only. You, the practitioner, should read the laws and regulations for your own state along with federal guidelines. Please consult an attorney if you have questions regarding any law.

OBJECTIVES
• Discuss approaches to minimize risk in pain management for prescribers and patients
• Differentiate between various drug testing methodologies
• Through a case study format, learn the intricacies of interpreting complex toxicology testing results
• Provide guidelines of expert monitoring for safe opioid prescribing
PAIN MANAGEMENT OVERVIEW

THE OPIOID EPIDEMIC BY THE NUMBERS
2016 and 2017 data

SOURCES
2. NCHS Data Brief No. 293, December 2017


DETERMINE WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN
• Opioids are not first-line therapy
• Establish goals for pain and function
• Discuss risk and benefits

CDC GUIDELINES FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP AND DISCONTINUATION
• Discuss Opioid Treatment Agreement in detail
• Use immediate-release opioids when starting with the lowest effective dose
• Prescribe short durations for acute pain
• Evaluate benefits and harms

ASSESSING RISK AND ADDRESSING HARMS
• Use strategies to mitigate risk
• Review PDMP data with patient
• Use other drug testing
• Use all sources
• Avoid concurrent opioid and benzodiazepine prescribing
• Offer treatment for opioid use disorder
PRIOR TO INITIATING OPIOID THERAPY:  
THE UTILITY OF THE OPIOID TREATMENT AGREEMENT

• Is a vital part of goal oriented treatment  
• Encourages open discussion about all aspects of risk  
• Responsibilities of the patient and provider is addressed and affirmed before and during treatment  
• Provides a framework for appropriate behavior  
• Should be used after proper risk assessment is obtained via (SOAPP-R) or (ORT)

CDC OPIOID DRUG MONITORING GUIDELINES FOR UDS

• When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs  
• Evaluate risk of harm or misuse. Known risk factors include: illegal drug use, prescription drug use for non-medical reasons, history of SUD or overdose, mental health conditions, sleep-disordered breathing, concurrent benzodiazepine use

DRUG MONITORING GUIDELINES
Tennessee Chronic Pain Guidelines:
Frequency of drug testing is left to the prescriber’s discretion, but general guidelines can be discussed, based on the relative risk for addiction or death of the patient. As detailed elsewhere in these guidelines confirmation testing is required prior to the outset of COT and at least twice per year for all patients on COT. Lower risk patients would typically be maintained on this frequency. Moderate risk patients would be tested 3-4 times per year. Higher risk patients and those over 100mg MEDD should be tested 4-5 times per year. Instances of aberrant behavior such as lost or stolen medication may also prompt additional screening. Higher risk patients may also need routine confirmation testing because certain aberrant behaviors will appear normal with office-based (POCT). Unexpected results from POCT should be sent for confirmatory testing. It is important to note that a patient’s level of risk may change over time and therefore risk should be reassessed periodically to determine if more or less frequent testing is warranted.
**ETHICAL CONSIDERATIONS OF TOXICOLOGY TESTING**

**BENEFICIENCY: TO ACT FOR PATIENT’S BENEFIT**
- UDT (Urine Drug Testing), when intent is diagnostic and therapeutic, and when rationale is clearly communicated to patient may enhance patient-provider relationship.
- UDT results reassure patients that they have the trust and confidence of their health care providers.

**NONMALEFICENCE: TO REFRAIN FROM ACTIONS THAT MAY CAUSE PATIENT HARM**
- What is rationale for testing? To terminate from practice vs optimize care?
- Harm may result if failure to monitor. UDT is ethically defensible in high-risk pts.
- Specimen collection? Convenience vs Excessive inconvenience? Direct observation vs respect privacy?
- Validity of results? Point of Care vs. Confirmatory? Expert vs. Uninformed Interpretation?
- Response to testing/results? Discharge vs Address concerns vs Inaction?

**JUSTICE: TO TREAT PATIENTS FAIRLY AND EQUITABLY**
- Test all or Test based on demographics (race, gender, religion, socioeconomics?)

**RESPECT FOR AUTONOMY: RIGHT TO SELF-RULE FREE FROM INFLUENCE**
- If Shared Decision Agreements are used, they should provide well informed consent rather than threaten therapeutic relationship.

**SOCIAL JUSTICE AND UTILITARIANISM (DOCTRINE THAT ACTIONS ARE RIGHT TO THE EXTENT THAT THEY PRODUCE THE BEST CONSEQUENCES FOR THE GREATEST NUMBER)**
- Does UDT promote society’s well being vs individual rights? Compare UDT to mandatory vaccination, mandatory adherence to TB treatment?
- Treat all as high risk unless signs of high risk behavior vs. treat all as high-risk until demonstrated adherence?
IN-HOSPITAL CONSULT ASSESSMENT AND TREATMENT

- REVIEW CONSULT REQUEST AND EXTENDED PDMP
  - Available reports including chronic conditions, medication reconciliation, labs including toxicology, radiology and consults
- HISTORY OF REPORT OF PAIN WITH BIOPSYCHOSOCIAL CONTEXT
  - Physical description: effect on activity/function, quality of life
  - Pharmacologic and non-pharmacologic use and effect
  - Opioid Risk evaluation naive and tolerant, OSA
- PHYSICAL EXAMINATION IN CONTEXT TO HISTORY AND DIAGNOSTIC TESTS
  - Pain behaviors
  - Neuro, musculoskeletal with provocative maneuvers/distraction measures

IN-HOSPITAL CONSULT ASSESSMENT AND TREATMENT

- MULTIMODAL PRESCRIBING FOR ACUTE, CHRONIC AND ACUTE ON CHRONIC PAIN
  - Individualized non-pharmacologic interventions
  - Individualized non-opioid and opioid medication considerations
  - Adjustment of regimen based on examination of condition, function, quality
  - Interprofessional collaboration
- PATIENT AND FAMILY CONSENT TO GOALS OF TREATMENT
  - Risks, benefits, alternatives and expectations; monitoring therapy
  - Physical and environmental safety of home prescription
- CONTINUUM OF CARE TREATMENT FROM TO PCP AND COMMUNITY SPECIALIST
  - Call conferencing for in-hospital treatment and discharge plan

PREScribing opioids
IN AN OUTPATIENT PRACTICE SETTING

- Review patient’s history, co-morbidities
- Perform Physical examination, baseline urine drug testing, and review diagnostic testing results
- Review previous non-pharmacologic interventions, prior non-opioid and opioid medications and effectiveness
- Signed treatment agreement to include random urine drug screening
OUTPATIENT PRACTICE CONSULT, ASSESSMENT, & TREATMENT

• Initial visit, no opioids prescribed until results obtained, reviewed and consistent with patient’s report. If an illicit substance (e.g., heroin, cocaine) is detected, then consider referral to an Addiction Psychiatrist.

• If UDT is consistent, an office visit is scheduled to initiate discussed opioid therapy.

• Set realistic goals for pain and functional ability.

• Evaluate opioid medication history and start with the lowest dosage.

• Follow CDC guidelines for 90 mg morphine daily equivalent.

PRESCRIBING OPIOIDS IN A OUTPATIENT PRACTICE SETTING

• Educate regarding risks of opioid use including overdose, respiratory depression, and addiction.

• Evaluate risk of harm or misuse; SOAPP-R, ORT.

• Check PDMP.

Consider Toxicology Testing Frequencies:

• Low risk: at least annually

• Moderate risk: 2 or more times per year

• High risk: 3 or more times per year

PRIVATE PRACTICE FOLLOW UP VISITS

• Review response to prescribed medications, both non-opioids and opioids.

• Review PDMP.

• Periodic review of treatment agreement.

• Assess changes in functional ability and quality of life using various utilities like: COMM, CAPA, Functional Pain Scale, BPI, GLOTH Scale, etc.

• Continued random and or periodic urine drug testing.
DRUG TESTING GOALS: OBJECTIVE DATA

- Is the patient taking prescribed medication(s)?
- Is the patient using non-authorized medication?
- Is the patient potentially diverting medication?
- Is the patient using illicit drugs?
- Is my patient being honest with me?
- Reduce the risk of drug toxicity from overdose and/or drug-drug interactions
- Physician liability can be reduced
- Monitor patient's treatment plan

URINE DRUG MONITORING

OVERVIEW:
- Most commonly utilized matrix in toxicology
- Long history of use
- Comprehensive data on its application
- Provides a 2-5 day window of detection for most drugs

BENEFITS:
- Ease of collection
- Contains high levels of metabolites
- Confirms presence of parent drug and metabolites, better insight

CONSIDERATIONS:
- Bathroom within proximity needed
- Easiest matrix to adulterate

ORAL FLUID DRUG MONITORING

OVERVIEW:
- Emerging drug testing matrix
- Popular alternative to urine
- Viewed as more invasive

BENEFITS:
- Provides a quick and non-invasive specimen for drug testing
- Specimens can be observed without infringing on privacy
- Does not suffer from the same adulteration or substitution issues common in urine
- Quantitative oral fluid drug analysis provides better estimated plasma concentration of the drug as compared to urine
- Testing protocol randomizer

CONSIDERATIONS:
- Primarily parent drug detection
- Recent drug use (1-36 hours)
BLOOD DRUG MONITORING

OVERVIEW:
- Detection of biologically active drug levels

BENEFITS:
- Correlation to total body drug concentration
- Impairment
- Physiologic effects
- Establish pharmacokinetic expected steady state drug concentration ranges

CONSIDERATIONS:
- Hematocrit
- Health concerns
- Specialized collection process
- Primarily parent drug detection
- Recent drug use (1-36 hours)

HAIR DRUG MONITORING

OVERVIEW:
- Access to long-term drug use histories
- ~3 month look back

BENEFITS:
- Larger surveillance window
- Although there are still some debates on how to interpret the results, particularly concerning external contamination, cosmetic treatments, genetic considerations and drug incorporation, pure analytical work on hair analysis has reached a sort of plateau, with almost all the analytical problems solved

CONSIDERATIONS:
- Collection process
- Segmental analysis

QUICK TOXICOLOGY FACT SUMMARY

<table>
<thead>
<tr>
<th></th>
<th>Urine</th>
<th>Oral Fluid</th>
<th>Blood</th>
<th>Hair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximate Detection Window</td>
<td>2 hrs to 6 days</td>
<td>1 to 36 hrs</td>
<td>1 to 36 hrs</td>
<td>7 days to 3 months</td>
</tr>
<tr>
<td>Metabolite Assessment</td>
<td>Yes</td>
<td>Some</td>
<td>None</td>
<td>Minimal</td>
</tr>
<tr>
<td>Adulteration Concerns</td>
<td>Yes</td>
<td>Minimal</td>
<td>Very minimal</td>
<td>Minimal</td>
</tr>
<tr>
<td>Special Collection Requirements</td>
<td>Restroom</td>
<td>None</td>
<td>Fishnet or higher</td>
<td>Scissors</td>
</tr>
<tr>
<td>Ease of Collection</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Turn-Around Time</td>
<td>48 hrs</td>
<td>48 hrs</td>
<td>48 hrs</td>
<td>120 hrs</td>
</tr>
<tr>
<td>In-Office Revenue</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Point-of-Care Test Available</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

DRUG TESTING METHODOLOGIES
POC SCREENING
• Instant screening results
• Should be used if absolutely necessary to have immediate presumptive results
• Immunoassay-based testing
• Limited panel of drugs; typical cups test for ~1-2 drug classes
• Medicare LCDs and SAMHSA site some known limitations of the technology

RESULTS
• Qualitative ( + or - ) only
• Drug class specific
• Does not differentiate parent drug from metabolites
• Subject to false positive & false negative results
• Clinical decisions should be driven by confirmatory testing

CASE STUDY: POINT OF CARE
• 400 pain management urine samples screened via POC cups and confirmed via LC-MS/MS
• Over 4,500 POC tests analyzed:
  • 18.4% of the positive POC tests were false when confirmed
  • 3.0% of the negative POC tests were false when confirmed

FALSE POSITIVE
FALSE NEGATIVE

POC testing alone hinders accurate assessment of patient compliance

OPIATE POSITIVE URINE SCREEN RESULTS
ONLY Confirmatory Testing will determine the exact drug
DATA REVIEW: FALSE POSITIVE POINT-OF-CARE TEST RESULTS

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Frequency of Positive POC Results</th>
<th>Frequency of False Positive POC Results</th>
<th>Percentage POC False Positives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamines</td>
<td>25</td>
<td>2</td>
<td>8.0%</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>9</td>
<td>6</td>
<td>66.7%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>79</td>
<td>12</td>
<td>14.3%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>42</td>
<td>4</td>
<td>9.5%</td>
</tr>
<tr>
<td>Methadone</td>
<td>4</td>
<td>3</td>
<td>75.0%</td>
</tr>
<tr>
<td>Opiates</td>
<td>12</td>
<td>2</td>
<td>16.7%</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>10</td>
<td>3</td>
<td>30.0%</td>
</tr>
<tr>
<td>Tricyclic Antidepressives</td>
<td>11</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>Venlafaxine</td>
<td>10</td>
<td>2</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

DATA REVIEW: FALSE NEGATIVE POC RESULTS

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Frequency of Negative POC Results</th>
<th>Frequency of False Negative POC Results</th>
<th>Percentage POC False Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamines</td>
<td>100</td>
<td>18</td>
<td>18.0%</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>32</td>
<td>2</td>
<td>6.2%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>52</td>
<td>3</td>
<td>5.7%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>74</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td>Methadone</td>
<td>40</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Opiates</td>
<td>42</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>28</td>
<td>10</td>
<td>35.7%</td>
</tr>
<tr>
<td>Tricyclic Antidepressives</td>
<td>40</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Venlafaxine</td>
<td>20</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

POIN OF CARE URINE DRUG TESTING

Sources of False Positive Results

- GSP: ADEK
- BIF: Amphetamine, Barbiturate, Benzodiazepine
- BAC: Benzodiazepine
- BCP: Benzodiazepine, Barbiturate, Amphetamine
- CRT: Barbiturate, Benzodiazepine
- TVP: Benzodiazepine, Barbiturate, Amphetamine
- UAM: Barbiturate, Benzodiazepine, Amphetamine
- ATV: Barbiturate, Benzodiazepine, Amphetamine
- AP: Benzodiazepine
Immunoassay Screening
- High-speed, enzyme-based tests
- Drug-class specific
- Wide variety of tests than POC cups
- Cutoffs comparable with POC cups
- Does not differentiate parent drug from metabolites
- Subject to false positive & false negative results
- Presumptive qualitative results

LC-MS/MS Confirmation
- "Platinum standard"
- Drug (analyte) specific
- Provides a molecular fingerprint
- Samples must be extracted prior to analysis
- Most extensive testing menu
- Cutoffs lower than screening tests
- Identification of parent drugs & associated metabolites
- Definitive quantitative results

WHY CONFIRMATION TESTING IS NECESSARY
- Immunoassay screens performed for a broad range of commonly used and abused therapeutic and illicit drugs
- When a positive drug screen is detected by the laboratory, a confirmation test is performed to isolate the exact drug.
- Common immunoassay results reflecting to confirmatory testing:
  1. Positive results
     - Expected
     - Unexpected
  2. Prescribed medications
     - Positive
     - Negative
  3. Any drugs that are only available through confirmatory methods

EXAMPLE REPORT: SCREEN TO CONFIRMATION RESULTS
- Patient is prescribed Vicodin
- Perform a urine drug test screening for a variety of commonly used and abused drugs confirming if a screen is positive
- Hydrocodone, norhydrocodone and hydromorphone are positive, but my patient is not prescribed a hydromorphone drug?
Doctor: Your lab result showed high levels of morphine?
Patient: *Uh, I ate a lot of bagels with poppy seeds that day.*

Doctor: How do you explain the cocaine, marijuana and fentanyl?
Patient: *I can explain... they were everything bagels...*

* My patient tested positive for a low level of morphine
* She is a well known patient, low risk and very compliant
* She is adamant she did not use morphine and very upset by the positive result
* What do you think?
(1) INTERPRETATION QUESTION: PATIENT ADAMANTLY STATES SHE DID NOT USE MORPHINE. HOW COULD IT BE POSITIVE?

| Case | PDD | Prescribed | Digic | Comments | Chain
|------|-----|------------|-------|----------|
| Morphine | 0.2 | 60 | 0 | 0 | Mosopodol

(1) INTERPRETATION ANSWER: LOW LEVEL OF MORPHINE DETECTED MAY BE DUE TO POPPY SEED CONSUMPTION

<Chemical analysis results>

CASE STUDY

* My patient is on Oxycodone, she tested positive for a low level of HYDROCODONE
* She is a well known patient, low risk and very compliant
* She is adamant she did not use HYDROCODONE and very upset by the result
* What do you think?
(2) INTERPRETATION QUESTION: PATIENT ADAMANTLY STATES SHE DID NOT USE HYDROCODONE. HOW COULD IT BE POSITIVE?

(2) INTERPRETATION ANSWER: LOW LEVEL OF HYDROCODONE DETECTED WITH HIGH LEVEL OF OXYCODONE MAY BE DUE TO KNOWN PHARMACEUTICAL IMPURITY IN OXYCODONE PRESCRIPTION

CASE STUDY

* My patient has been testing for several weeks and is still positive for marijuana

* Is he/she still using?
(3) INTERPRETATION QUESTION: HOW DO I KNOW IF A POSITIVE URINE TEST FOR THC IS DUE TO NEW MARIJUANA USE?

(3) INTERPRETATION ANSWER: THE THC/CREATININE RATIO NORMALIZES THC LEVELS TO HELP DETERMINE NEW OR RESIDUAL MARIJUANA USE. GENERALLY, AFTER LAST USE, THC/CR RATION DECREASES BY HALF APPROXIMATELY EVERY 2 TO 10 DAYS, DEPENDING ON USE. THIS PATIENT’S MOST RECENT THC POSITIVE TEST IS NOT SUGGESTIVE OF NEW USE.

CASE STUDY

* My patient is prescribed oxycodone and her point of care test cup was positive for oxycodone, as expected
* She requested an increase in her dosage as her pain is not being managed well
* I decided to run confirmation testing on her urine sample prior to prescribing changes and the sample was positive for a high level of oxycodone but no metabolites
* What might be going on?
(4) INTERPRETATION QUESTION: WHY ARE NO OXYCODONE METABOLITES PRESENT IN MY PATIENT’S URINE SAMPLE?

(4) INTERPRETATION ANSWER: THE HIGH LEVEL OF OXYCODONE WITHOUT PRESENCE OF METABOLITES MAY BE DUE TO A POTENTIAL PILL SCRAPE – THIS SAMPLE “PASSED” THE IN-OFFICE POINT-OF-CARE TEST

CASE STUDY

* My patient is prescribed Percocet and Norco

* She was unable to urinate, so we administered an oral fluid test

* The results came back and showed oxycodone positive, but no metabolites and hydrocodone positive, but no metabolites

* What is going on?
(5) INTERPRETATION QUESTION: WHY ARE NO METABOLITES PRESENT IN MY PATIENT’S ORAL FLUID SAMPLE?

<table>
<thead>
<tr>
<th>Metabolite</th>
<th>Oral Fluid Count</th>
<th>Oral Fluid %</th>
<th>Urine Count</th>
<th>Urine %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxycodone + Noroxycodone</td>
<td>165</td>
<td>40.84</td>
<td>94</td>
<td>4.21</td>
</tr>
<tr>
<td>Oxycodone Only</td>
<td>138</td>
<td>34.16</td>
<td>98</td>
<td>4.38</td>
</tr>
<tr>
<td>Oxycodone, Noroxycodone, Oxymorphone</td>
<td>71</td>
<td>17.57</td>
<td>1798</td>
<td>80.45</td>
</tr>
<tr>
<td>Oxymorphone Only</td>
<td>20</td>
<td>4.95</td>
<td>104</td>
<td>4.65</td>
</tr>
<tr>
<td>Oxycodone + Oxymorphone</td>
<td>8</td>
<td>1.98</td>
<td>27</td>
<td>1.21</td>
</tr>
<tr>
<td>Noroxycodone Only</td>
<td>2</td>
<td>0.50</td>
<td>43</td>
<td>1.92</td>
</tr>
<tr>
<td>Noroxycodone + Oxymorphone</td>
<td>0</td>
<td>0.00</td>
<td>71</td>
<td>3.18</td>
</tr>
<tr>
<td>Total</td>
<td>404</td>
<td></td>
<td>2235</td>
<td></td>
</tr>
</tbody>
</table>

OXYCODONE ANALYTE DISTRIBUTION

(5) INTERPRETATION ANSWER: PARENT DRUGS ARE MORE COMMONLY DETECTED (AND TESTED) IN ORAL FLUID. IT IS NOT UNCOMMON TO TEST NEGATIVE FOR METABOLITES IN ORAL FLUID. URINE IS A RESERVOIR MATRIX FOR METABOLITES, WHILE ORAL FLUID IS A FILTRATE OF THE BLOOD.

<table>
<thead>
<tr>
<th>Metabolite</th>
<th>Oral Fluid Count</th>
<th>Oral Fluid %</th>
<th>Urine Count</th>
<th>Urine %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone Only</td>
<td>197</td>
<td>72.2</td>
<td>65</td>
<td>2.6</td>
</tr>
<tr>
<td>Hydrocodone + Norhydrocodone</td>
<td>56</td>
<td>20.5</td>
<td>408</td>
<td>16.5</td>
</tr>
<tr>
<td>Hydromorphone Only</td>
<td>17</td>
<td>6.2</td>
<td>553</td>
<td>22.4</td>
</tr>
<tr>
<td>Hydrocodone, Norhydrocodone, Hydromorphone</td>
<td>2</td>
<td>0.7</td>
<td>1395</td>
<td>56.5</td>
</tr>
<tr>
<td>Hydrocodone + Hydromorphone</td>
<td>1</td>
<td>0.4</td>
<td>18</td>
<td>0.7</td>
</tr>
<tr>
<td>Norhydrocodone Only</td>
<td>0</td>
<td>0.0</td>
<td>23</td>
<td>0.9</td>
</tr>
<tr>
<td>Norhydrocodone + Hydromorphone</td>
<td>0</td>
<td>0.0</td>
<td>9</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>273</td>
<td></td>
<td>2471</td>
<td></td>
</tr>
</tbody>
</table>

HYDROCODONE ANALYTE DISTRIBUTION

CASE STUDY

* My patient tested positive for multiple opioids: morphine, codeine, hydromorphone and oxycodone
* He admitted to taking Tylenol with codeine the night prior and that he had morphine and oxycodone administered in the ER the day before
* He denies any use of hydromorphone
* Why is there hydromorphone detected in his urine?
INTERPRETATION QUESTION: HOW DO I INTERPRET WHAT UNAUTHORIZED OPIOIDS MY PATIENT USED?

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Interpreted</th>
<th>Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone</td>
<td>Hydrocodone use</td>
<td></td>
</tr>
<tr>
<td>Hydrocodone, hydromorphone</td>
<td>Hydrocodone &gt; hydromorphone – hydrocodone use, hydromorphone is an expected metabolite of hydrocodone</td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Oxycodone use</td>
<td></td>
</tr>
<tr>
<td>Oxycodone, oxymorphone</td>
<td>Oxycodone &gt; oxymorphone – oxycodone use, oxymorphone is an expected metabolite of oxycodone</td>
<td></td>
</tr>
</tbody>
</table>

INTERPRETATION ANSWER: CALL A TOXICOLOGIST FOR INTERPRETATION ASSISTANCE!

CASE STUDY

* My patient tested positive for way too many things for me to understand
* What should I do?
* Denote the clinical plan. Ask for help.
(6) INTERPRETATION QUESTION: HOW DO I INTERPRET??

CALL A TOXICOLOGIST FOR INTERPRETATION ASSISTANCE!

Document the Following:
- Call was made to lab
- Toxicologist's name
- Their professional interpretation of result
- Considerations, objective and subjective
- Plan of action

TOOL BOX TAKEAWAY FOR ATTENDEES

1. CDC Guideline
2. State Guidelines
3. Risk Assessment Tools, ORT & SOAPP-R
4. Sample Opioid Treatment Agreements
5. Point of Care Testing False Positive Table
6. Opioid Metabolism Chart
7. Drug Detection Times
8. Clinical Practice Testing Management Tools
THANK YOU!

PCSS MENTORING PROGRAM

- PCSS MENTOR PROGRAM IS DESIGNED TO OFFER GENERAL INFORMATION TO CLINICIANS ABOUT EVIDENCE-BASED CLINICAL PRACTICES IN PRESCRIBING MEDICATIONS FOR OPIOID ADDICTION.
- PCSS MENTORS ARE A NATIONAL NETWORK OF PROVIDERS WITH EXPERTISE IN ADDICTIONS, PAIN, EVIDENCE-BASED TREATMENT INCLUDING MEDICATION-ASSISTED TREATMENT.
- 3 TIERED APPROACH ALLOWS EVERY MENTOR/MENTEE RELATIONSHIP TO BE UNIQUE AND CATERED TO THE SPECIFIC NEEDS OF THE MENTEE.
- NO COST.

For more information visit: pcssnow.org/mentoring

PCSS DISCUSSION FORUM

HAVE A CLINICAL QUESTION?

Ask a Colleague
A simple and direct way to receive all answers related to medication-assisted treatment, designed to provide a quick response to simple practice-related questions.