



Risk Mitigation Strategies Part I

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Disclosure/Conflict of Interest

- I, Timothy Atkinson, have no actual or potential conflict of interest in relation to this program.

Disclosures:

Axial Healthcare – Consultant

Daiichi Sankyo – Advisory Board

Purdue Pharma – Epidemiology Advisory Board

Honoraria – ACCP, PAINWeek



Objectives

- Identify common risk mitigation strategies including:
 - Patient informed consent/opioid pain care agreements
 - Abuse risk screening tools
 - PDMP
 - Urine drug testing
 - Pill counts
 - Controlled substance storage and disposal
 - Communication
- Discuss benefits and challenges to each strategy
- Differentiate appropriate use of each strategy



Mitigating Risk Through Universal Precautions



Opioid Pain Care Agreements

Types of Opioid Pain Care Agreements (OPCA)

- Opioid Contracts
- Opioid Agreements
- Informed Consent for Opioid Therapy

National Center for Ethics in Health Care (NCEHC)

- Use of threatening language
- Potential to undermine trust
- Emphasizes punitive measures
- Harm the patient-provider relationship



Opioid Pain Care Agreements

Recommended elements:

- Brief description of treatment
 - Benefits
 - Known risks and adverse effects
- Alternatives to treatment
- Expectations & Responsible use
 - “Your provider may stop prescribing opioids if risks outweigh benefits or they’re not helping your treatment”
- Address questions/concerns
- Respect patient autonomy/decision-making



Taking Opioids Responsibly

Expectations:

- Take as prescribed
- Don't take extra doses
- Honesty with providers about use of all drugs
 - Inform of short term opioid Rx and reason
 - Use 1 provider and 1 pharmacy
- Don't stop taking opioids on your own
- Obey the law and be cautious about driving or operating machinery
- Avoid alcohol and any street drugs
- Don't sell or give away your opioids



Types of Screening Tools

Risk Assessment Tools

- SOAPP
- SOAPP-R
- ORT
- DIRE

Opioid Misuse Tools

- PADT
- COMM
- ABC



Risk Assessment Tools

SOAPP¹

Question Formats

5, 14, 24

Indications

1° Care, Assess for high abuse risk, suitability for long term opioid tx, preferable to ORT in high-risk populations

Advantages

Best psychometrics, less susceptible to deception, 5-10 minutes

Disadvantages

Dependent on patient reporting, Copyrighted

Scoring

Numeric, simple to interpret

Validated

Yes, 14 question studied in 396 pts

SOAPP-R²

24

Primary Care

5 minutes, Cross-validated, Less susceptible to overt deception c/t SOAPP

Less sensitive and less specific than SOAPP

Numeric, simple to interpret

Yes, 283 pts

ORT³

5

Categorizes patients as low risk, moderate risk, and high risk

Less than 1 minute, simple scoring, high sensitivity & specificity when stratifying patients

1 question in the ORT is limited by patient's knowledge of family history of substance abuse

Numeric, simple to interpret

Yes, (male and female), Preliminary Validation in 185 patients at 1 pain clinic, high degree of sensitivity and specificity

DIRE⁴

7, by pt interview

risk of opioid abuse and suitability of candidates for long term opioid therapy

2 minutes, score correlates well with patient's compliance & efficacy of long term opioid therapy

Prospective validation needed

Numeric, simple to interpret

?, Retrospective validation only of 61 pts over 38 months



Opioid Misuse Tools	Question Formats	Indications	Advantages	Disadvantages	Scoring	Validated
PADT ⁵	N/A	To streamline the assessment of outcomes in patients with chronic pain, 2 sided chart note based on 4-A's*	5 minutes, Documents progress over time, Complements a comprehensive clinical evaluation	Not intended to be predictive of drug-seeking behavior or predict positive or negative outcomes to opioid therapy	N/A	Further studies needed to confirm the reliability and validity, Studied in 388 patients by 27 clinician
COMM ⁶	17	To assess aberrant medication related behaviors of chronic pain patients	10 minutes, Useful in assessing & reassessing adherence to opioid RX(s)	Long term reliability is unknown	Numeric	222 pts, Long term reliability is unknown, Validated in small study, needs to be replicated
ABC ⁷	20 questions	Ongoing clinical assessment of chronic pain patients on opioid therapies	Concise and easy to score Studied in the VA setting	Needs validation in non-VA setting.	Score of ≥ 3 indicates possible inappropriate opioid based on Y/N answers	Studied 136 veterans in a multidisciplinary VA Chronic Pain Clinic

Risk Stratification and Patient Management

Characteristic	Low Risk	Moderate Risk	High Risk
Substance abuse	Never	Past	Current
Smoking (nicotine)	Never	Past	Current
Family history of addiction	None	Significant	Significant
Psychosocial factors	No major diagnoses; minor diagnoses treated or stable	Past major diagnoses; current issues with minor diagnoses	Current major diagnoses untreated or unstable
Age	Older	N/A	Younger
History of sexual abuse	No	N/A	Yes
Controlled prescriptions lost or stolen	No	N/A	Yes
Unauthorized substances in urine drug screens	Consistently negative	Initially positive	Consistently positive
Recommendations based on risk stratification			
Healthcare setting	Primary care	Primary care with specialist support	Specialty pain management

Gourlay DL, et al. *Pain Med.* 2005;6(2):107-112.



Prescription Drug Monitoring Program (PDMP)

Background: Ms. Jacobs is a 71 yo female receiving oxycodone 10 mg q6h PRN monthly for the last 2 years for osteoporotic vertebral fractures. She has a consent signed, and a UDS completed in the last month. She has not had a PDMP check in the last year.

Current Status: PDMP check results show the following outside fills

3/23/2018 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

2/23/2018 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

1/24/2018 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

12/24/2017 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

11/24/2017 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

10/24/2017 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

9/24/2017 OXYCODONE-ACETAMINOPHEN 10-325 60.0 30

Question: What would you do?

Would it change your mind if it was a single fill for 3 day supply?



PDMP

Answer:

Discuss results with patient

Taper vs. discontinuation

Naloxone education and prescription

Referral to treatment for opioid use disorder

Offer non-opioid and non-pharmacological alternatives



Urine Drug Screen Monitoring

Guidelines

- Prior to initial Rx
- Randomly selected visits
- Minimum standard – annual
 - Recommended – every 3 months
- Frequency determined by risk
 - Increased Risk → Increased Frequency



Top 10 Abnormal UDS Patient Responses

10. “I haven’t ever taken methamphetamines, that’s speed isn’t it? First it was marijuana, that I didn’t take, now it’s methamphetamines, so what is it gonna be next?”
9. “I don’t take my medicine in the morning before our appointments because I refuse to drive impaired”
8. “Someone sabotaged me...again.”
7. “They put my urine sample next to 10 others on a table without any labels, they must have mixed it up”
6. “Wow....Really??.....maybe my marijuana was laced with cocaine?”

Clinical Pearls of UDS

Only definitive results should be used to change therapy



Top 10 Abnormal UDS Patient Responses

5. “They must have given me cocaine in the ER, then! Do they do that?”
4. “I keep a pill bottle filled with urine in my sock because....it’s sometimes hard to go on demand!”
3. “My body processes the drugs differently and they often don’t show up in UDS. My old doctor was aware, if you call him, he’ll tell you.”
2. “I was positive for cocaine because I was a born a crack baby, it must have gotten into my system because every once in a while I seem to test positive”
1. “That son of a @#%! sold me dirty urine!”

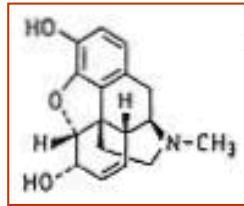
Clinical Pearls of UDS

Only definitive results should be used to change therapy

Chemical Classes of Opioids



PHENANTHRENES



MORPHINE

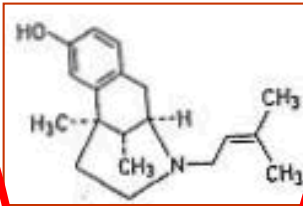
morphine
 codeine
 hydrocodone*
 hydromorphone*
 levorphanol*
 oxycodone*
 oxymorphone*
 buprenorphine*
 nalbuphine
 butorphanol*
 naloxone*
 heroin (diacetyl-morphine)

Rx EXAMPLES >

**Opiate
Immunoassay**

X-SENSITIVITY > PROBABLE

BENZOMORPHANS

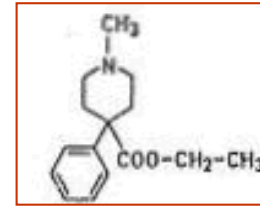


PENTAZOCINE

pentazocine
 diphenoxylate
 loperamide

POSSIBLE

PHENYLPIPERIDINES

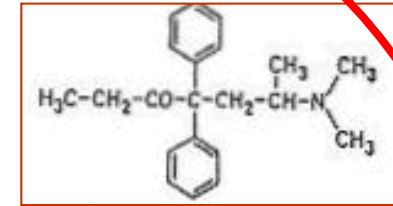


MEPERIDINE

meperidine
 fentanyl
 sufentanil
 alfentanil
 remifentanyl

LOW RISK

DIPHENYLHEPTANES



METHADONE

methadone
 propoxyphene

LOW RISK

**Specific
Immunoassay**

See separate slide for tapentadol & tramadol

*These agents lack the 6-OH group of morphine, possibly decreasing cross-sensitivity within the phenanthrene group



Case Studies



Case Study: Arthur

- 49-year-old man, history of chronic trigeminal neuralgia, multiple interventional procedures and multiple medication trials with no sustained benefit
- Past Medical History (PMH): otherwise negative
- Current pharmacologic regimen includes:
 - Gabapentin (Neurontin[®])
 - Hydromorphone ER (Exalgo[®])
 - Hydrocodone + APAP (Vicodin[®])



Case Study: Arthur

Per published guidelines, Arthur's physician utilizes urine drug testing to monitor prescribed drug therapy, as well as monitor for illicit and non-prescribed drug use.

In-Office Test Result	
Test	Result
Opiate	Negative

LC-MS Laboratory Test Results	
Test	Result
Hydromorphone	Negative
Hydrocodone	Negative
Gabapentin	Positive



Unexpected Results

Negative for Prescribed Medications

Possible reasons:

- Lack of recent medication administration
- Medication specific pharmacokinetics
- Deviation from treatment plan due to unrelieved pain, unacceptable side effects, fear of addiction, diversion or others
- Medication hoarding
- Medication not detected by specific test
- Medication interactions
- Genetic variations in metabolism

Reisfield GM,Goldberger, BA, Bertholf RL. False-positive and false-negative test results in clinical urine drug testing. *Bioanalysis* 2009. 1(5): 937-52



Initiate a conversation with the patient:

“The result from your urine drug test was negative for the medications we are prescribing. Can you help me understand why that may be?”

- Explore the dose, frequency, and pattern of medication use prior to UDT
- Attempt to understand the patient variables that may contributed to the unexpected result
- Most common reason: They were tested when they should be out of medication
 - Always check refill history before assuming aberrant behavior



Case Study: Arthur

- Upon further exploration, “Arthur” shares that he is on a number of medications and cannot afford all of the prescribed medications every month
- As a result, he has his medications filled at his pharmacy every other month and states he “tries to stretch my medications out to two months”
- The last doses of hydromorphone and hydrocodone were taken over 7 days ago, resulting in negative UDT results for these medications
- **Action: Reduce to actual usage, counsel on medication adherence**
 - **Increase frequency of monitoring**

Urine Drug Testing Methods³⁻⁵

Type of Test	Logistics	Pearls
Initial Screening Test: Immunoassay	<ul style="list-style-type: none"> • Inexpensive • Fast • Widely available 	<ul style="list-style-type: none"> • High sensitivity, low specificity (higher potential for false positives) • Opiate screen not sensitive for semisynthetic (e.g. oxycodone) or synthetic opioids (e.g. fentanyl)
Confirmatory Test: Gas chromatography-mass spectrometry (GCMS) ⁺ or Liquid chromatography-mass spectrometry (LCMS)	<ul style="list-style-type: none"> • Expensive • Time consuming 	<ul style="list-style-type: none"> • High sensitivity, high specificity • Expensive • Detects medication even if concentration is low

⁺ GCMS is considered the criterion standard for confirmatory testing; Immunoassay tests have high predictive values for marijuana and cocaine, but lower predictive values for opiates and amphetamines

Critical to understand lab tests at your facility

UDS Samples are saved for X days

Initial Screening (Immunoassay) → [Same day]

Confirmation test → Send out lab (LC-MS) [7-10 days]



Standard Opiate Immunoassay Screen

Morphine 300 ng/mL

Hydrocodone 1,700 ng/mL

Hydromorphone 1,700 ng/mL

Oxycodone 23,000 ng/mL

Oxymorphone 41,000 ng/mL



Managing Unexpected Results

Decide in advance how you will handle these different scenarios:

Negative for prescribed medications

Positive for non-prescribed medications

Positive for illicit substances



Naloxone Distribution

Aims to reduce harm and risk of life-threatening opioid-related overdose and deaths among Patients

- Risk factors
 - Loss of tolerance to opioids
 - Mixing opioids with other depressant drugs or alcohol
 - Poor or compromised physical health
 - Increased risk for opioid overdose
- How to Calculate Risk of Overdose?
 - RIOSORD



Risk Index for Overdose or Serious Opioid-Induced Respiratory Depression (RIOSORD)

Description	Y/N	Score
In the past 6 months, has the patient had a health care visit (outpatient, inpatient, or ED) involving:		
Opioid dependence?		15
Chronic hepatitis or cirrhosis?		9
Bipolar disorder or schizophrenia?		7
Chronic pulmonary disease? (e.g., emphysema, chronic bronchitis, asthma, pneumoconiosis, asbestosis)		5
Chronic kidney disease with clinically significant renal impairment?		5
Active traumatic injury, excluding burns? (e.g., fracture, dislocation, contusion, laceration, wound)		4
Sleep apnea?		3
Does the patient consume:		
An extended-release or long-acting (ER/LA) formulation of any prescription opioid or opioid with long and/or variable half-life? (e.g., OxyContin, Oramorph-SR, methadone, fentanyl patch, levorphanol)		9
Methadone? (Methadone is a long-acting opioid, so also write Y for "ER/LA formulation")		9
Oxycodone? (If it has an ER/LA formulation [e.g., OxyContin], also write Y for "ER/LA formulation")		3
A prescription antidepressant? (e.g., fluoxetine, citalopram, venlafaxine, amitriptyline)		7
A prescription benzodiazepine? (e.g., diazepam, alprazolam)		4
Is the patient's current maximum prescribed opioid dose:		
>100 mg morphine equivalents per day?		16
50-100 mg morphine equivalents per day?		9
20-50 mg morphine equivalents per day?		5
In the past 6 months, has the patient:		
Had 1 or more ED visits?		11
Been hospitalized for 1 or more days?		8
Total Score		115

Opioid Induced Respiratory Depression (OIRD) Probability based on Calculated Risk Index

Risk index score	OIRD probability (%)
0-24	3
25-32	14
33-37	23
38-42	37
43-46	51
47-49	55
50-54	60
55-59	79
60-66	75
≥67	86

Adapted from: Zedler B, Xie L, Wang L et al. Development of a Risk Index for Serious Prescription Opioid-Induced Respiratory Depression or Overdose in Veterans' Health Administration Patients. *Pain Medicine*. Jun 2015. 16;1566-1579.



Case Study: Jane

- 51-year-old woman, history of low back pain that began 8 years ago following a motor vehicle accident. She had back surgery, which resulted in only minimal relief for ~6 months
- PMH: chronic pain, depression, hypothyroidism
- Current pharmacologic regimen includes:
 - Duloxetine (Cymbalta[®])
 - Fentanyl (Duragesic[®])
 - Hydrocodone + APAP (Lortab[®])



Case Study: Jane

- Per published guidelines, Jane’s physician utilizes urine drug testing to monitor prescribed drug therapy, as well as monitor for illicit and non-prescribed drug use.

In-Office Test Results	
Test	Result
Opiate	Negative
Benzodiazepines	Positive
Benzoyllecgonine (cocaine metabolite)	Positive

LC-MS/MS Laboratory Test Results	
Test	Result
Fentanyl	Positive
Hydrocodone	Negative
Alpha-hydroxyalprazolam	Positive
Benzoyllecgonine	Positive



Unexpected Results

Positive for Non-Prescribed Medications

- **Possible reasons:**
- Patient is experiencing other symptoms (e.g., anxiety) and self-medicating
- Obtaining medication from other sources
- Patient is not accurately reporting medications prescribed by other providers (i.e., benzodiazepines)
- Product of metabolism

Christo PJ, Manchikanti L, Ruan X, Bottros M, et al. Urine Drug Testing in Chronic Pain. *Pain Physician*. 2011; 14: 123-143



Windows of Detection in Urine

- Indicates how long after administration a person excretes the drug and/or its metabolite(s) at a concentration above a specific test cutoff concentration
 - 1 to 3 days for most drugs and metabolites

Drug/Drug Class	Approximate Window of Detection
Amphetamines	3-5 days
THC*	3-5 days
Benzodiazepines*	1-3 days
Opioids*	~3 days
Cocaine (benzoylecgonine metabolite)	2-3 days

*Long-term use of lipophilic drugs or longer-acting benzodiazepines can extend window of detection.



Unexpected Results

Positive for Illicit Substances

What do you think are some possible reasons Jane's results came back positive for an illicit substance?



Unexpected Results

Positive for Illicit Substances

- **Possible reasons:**
- Abuse or addiction
- Unknown past history
- Inadequate pain relief or presence of other symptoms that the patient is choosing to treat with illicit substances
- False-positive result

Christo PJ, Manchikanti L, Ruan X, Bottros M, et al. Urine Drug Testing in Chronic Pain. *Pain Physician*. 2011; 14: 123-143.



Addressing Unexpected Results

Initiate a conversation with the patient:

“Help me understand why your urine results came back positive for alprazolam?”

“Your UDT results were positive for cocaine, let’s talk about this.”

- Ask the patient about other symptoms that may be untreated (e.g., anxiety)
- Discuss possible treatment changes required based on the UDT results



Case Study: Jane

Conclusion

- Upon further exploration, “Jane” shares that she is using her sister’s medication to manage her “nerves”
- History of cocaine use in college
- Therapeutic plan may include formal psychiatric evaluation and/or referral for addiction and significant changes to her medication regimen
- **Action: Taper opioids, refer to SATP**
 - Continue non-opioid medications
 - Provide encouragement



Case Study: Charles

- 31-year-old man, history of esophageal cancer, now free of disease
- History of chronic upper abdominal pain following his original tumor resection
- PMH: depression
- Current pharmacologic regimen includes:
 - Morphine (Avinza[®])
 - Venlafaxine (Effexor[®])



Case Study: Charles

Per published guidelines, Charles' physician utilizes urine drug testing to monitor prescribed drug therapy, as well as monitor for illicit and non-prescribed drug use.

In-Office Test Results	
Test	Result
Opiate	Positive
Phencyclidine (PCP)	Positive

LC-MS Laboratory Test Results	
Test	Result
Morphine	Positive
Hydromorphone	Positive
Phencyclidine (PCP)	Negative
Venlafaxine	Positive



Unexpected Results

Positive for Illicit Substances

- What do you think are some possible reasons Charles' in-office UDT came back positive for an illicit substance?



Unexpected Results

Positive for Illicit Substances

- **Possible reasons:**
- **Abuse and addiction**
- **Unknown past history**
- **Inadequate pain relief or presence of other symptoms that the patient is choosing to treat with illicit substances**
- **False-positive result**

Christo PJ, Manchikanti L, Ruan X, Bottros M, et al. Urine Drug Testing in Chronic Pain. *Pain Physician*. 2011; 14: 123-143.



Unexpected Results

Positive for Non-Prescribed Medication

➤ What do you think are some possible reasons Charles' lab results came back positive for non-prescribed medication?

Urine Drug Screening: Practical Guide for Clinicians¹

Federal Workplace Cutoff Values

Substance	Initial drug test level (immunoassay) (ng/mL)	Confirmatory drug test level (GC-MS) (ng/mL)
Marijuana	50	15
Cocaine metabolites	300	150
Opiate metabolites	2000	2000
Phencyclidine	25	25
Amphetamines	1000	500
Methamphetamine	Incomplete data	500

Length of Time Drugs of Abuse Can Be Detected in Urine

Drug	Time
Alcohol	7-12 h
Amphetamine	48 h
Methamphetamine	48 h
Barbiturate	
Short-acting	24 h
Long-acting	3 wk
Benzodiazepine	
Short-acting (e.g., lorazepam)	3 d
Long-acting (e.g., diazepam)	30 d
Cocaine metabolites	2-4 d
Marijuana	
Single use	3 d
Moderate use (4 times/wk)	5-7 d
Daily use	10-15 d
Long-term heavy smoker	>30 d
Opioids	
Codeine	48 h
Heroin (morphine)	48 h
Hydromorphone	2-4 d
Methadone	3 d
Morphine	48-72 h
Oxycodone	2-4 d
Propoxyphene	6-48 h
Phencyclidine	8 d

Summary of Agents Contributing to Positive Results by Immunoassay

Substance tested via immunoassay	Potential agents causing false-positive result	Substance tested via immunoassay	Potential agents causing false-positive result
Alcohol	Short-chain alcohols (isopropyl alcohol)	Cannabinoids	Dronabinol
Amphetamines	Amantadine		Efavirenz
	Benzphetamine		Hemp-containing foods
	Bupropion		NSAIDs
	Chlorpromazine		PPIs
	Clobenzorex		Tolmetin
	<i>l</i> -Deprenyl	Cocaine	Coca leaf tea
	Desipramine		Topical anesthetics containing cocaine
	Dextroamphetamine	Opioids, opiates, and heroin	Dextromethorphan
	Ephedrine		Diphenhydramine
	Fenproporex		Heroin
	Isometheptene		Opiates
	Isoxsuprine		Poppy seeds
	Labetalol		Quinine
	MDMA		Quinolones
	Methamphetamine		Rifampin
	<i>l</i> -Methamphetamine (Vick's inhaler)		Verapamil and metabolites
	Methylphenidate	Phencyclidine	Dextromethorphan
	Phentermine		Diphenhydramine
	Phenylephrine		Doxylamine
	Phenylpropanolamine		Ibuprofen
	Promethazine		Imipramine
	Pseudoephedrine		Ketamine
	Ranitidine		Meperidine
	Ritodrine		Mesoridazine
	Selegiline		Thioridazine
	Thioridazine		Tramadol
	Trazodone		Venlafaxine, O-desmethylvenlafaxine
	Trimethobenzamide	TCA _s	Carbamazepine
	Trmipramine		Cyclobenzaprine
			Cyproheptadine
Benzodiazepines	Oxaprozin		Diphenhydramine
	Sertraline		Hydroxyzine
			Quetiapine

*Moeller KE, Lee KC, Kissak JC. Urine Drug Screening: Practical Guide for Clinicians. *Mayo Clin Proc.* 2008; 83(1):66-76.



Unexpected Results

Positive for Non-Prescribed Medications

- **Possible reasons:**
- Patient is experiencing other symptoms and self-medicating
- Obtaining medication from other sources
- Patient is not accurately reporting medications prescribed by other providers
- Product of metabolism

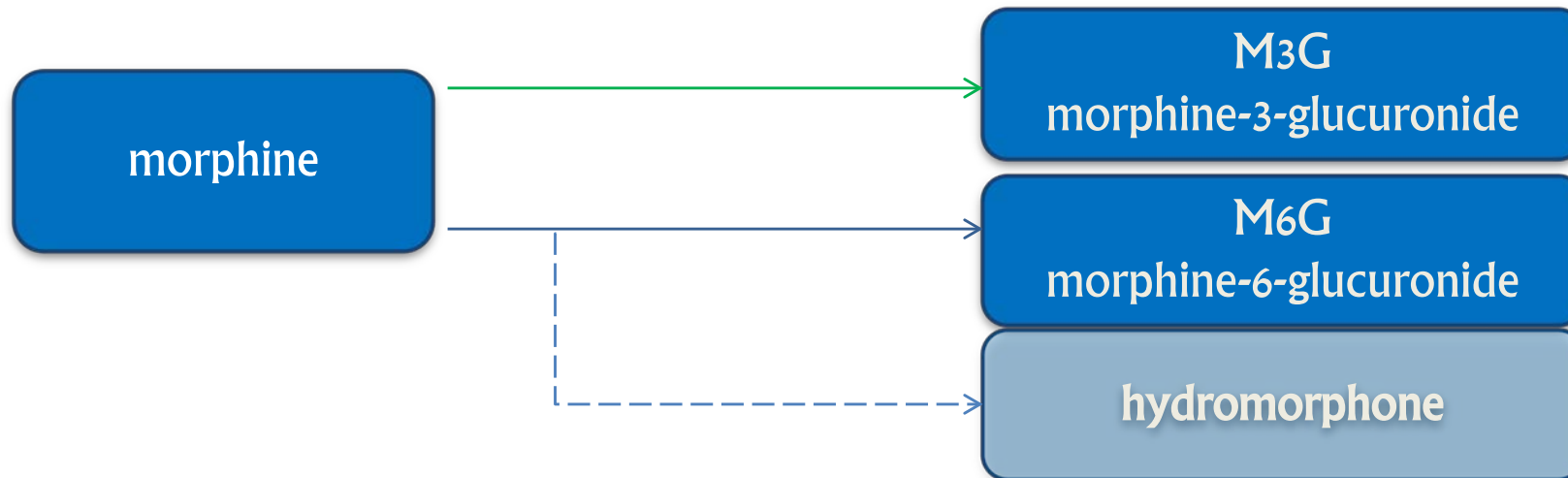
Christo PJ, Manchikanti L, Ruan X, Bottros M, et al. Urine Drug Testing in Chronic Pain. *Pain Physician*. 2011; 14: 123-143.



Case Study: Charles

Clinical Pearls

Knowledge of opioid metabolism can improve UDT interpretation



Gourlay DL, Heit HA, Caplan YH. Urine Drug Testing in Clinical Practice: The Art & Science of Patient Care. John Hopkins University School of Medicine (<http://www.udtmonograph.com/>). 5th Edition. June 2012.



Case Study: Charles

Conclusion

- Upon further exploration, we find that Charles is taking his medication as directed
- In-office test results had a false positive
- LC-MS/MS laboratory test results were negative for PCP and positive for the prescribed venlafaxine
- These results can serve as an opportunity to educate patients about their findings
- **Action: Continue medications**



Addressing Unexpected Results

- Understand and consider the possible cause for the unexpected result:
 - The presence of major and minor metabolites (hydromorphone=minor morphine metabolite)
 - Interactions with testing
 - False positives/False negatives
 - When in doubt, clarify the result by contacting the laboratory
 - Discuss results with the toxicologist
 - Understand the meaning of the results
 - Identify presence of other variables



Case Studies Recap

Case 1 (UR)

Takes medication, but can't afford to fill prescription as directed

Case 2 (UR)

Takes some medication, as well as non-prescribed medication & illicit substances

Case 3 (UR)

Results contained a false positive, but takes medication as directed

Challenge Round



Immunoassay

Barbiturates NEG

Amphetamines NEG

Cocaine NEG

Benzodiazepines POS

Cannabinoids NEG

Opiates POS

Oxycodone POS

Confirmation LC-MS

Nordiazepam POS 394ng/mL

Oxazepam POS 1,296 ng/mL

Temazepam POS 723ng/mL

Hydrocodone POS 569ng/mL

Oxycodone POS 404ng/mL

Oxymorphone POS 664ng/mL



The MINDSSM Assessment to Guide Personalized Care

M

Metabolism

I

Interaction of Medications

N

Not Taking as Prescribed

D

Disease State

S

Substance Abuse



Conclusions

Risk Stratification is critical to patient care

Monitoring frequency of PDMP & UDS should reflect risk

Order the correct test for the prescribed medication

Clinical decisions should be made ONLY with definitive results