

# The Golden Rule: Why Urine Drug Monitoring is Good For Everyone



## **CASE PRESENTATIONS**

# Screening vs. Confirmation



- **Screening Tests**

- Urine Dipstick

- Immunoassay

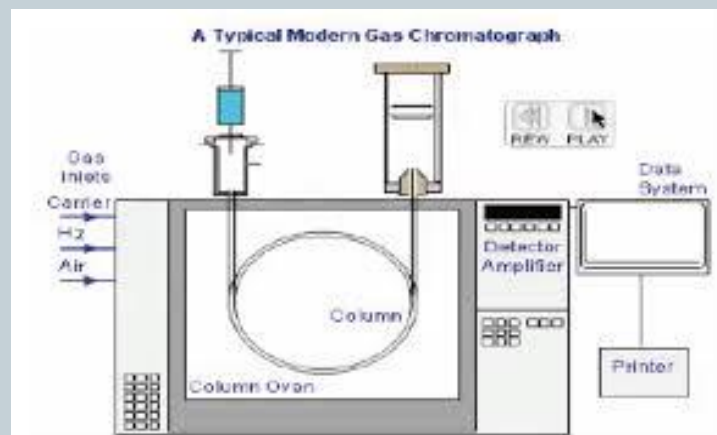
- ✦ Higher cut-off concentration
    - ✦ Less sensitive
    - ✦ High false positive
    - ✦ High false negative



# Screening vs. Confirmation

- Confirmatory Testing

- Gas Chromatography Mass Spectroscopy (GCMS)
- Liquid Chromatography Mass Spectroscopy (LCMS)
  - ✦ Can detect very low levels (50ng/ml)
  - ✦ Very sensitive and specific
  - ✦ Eliminates false (+)/(-)



# Case #1



- 65 y/o caucasian female
- Medications prescribed:
  - Norco (hydrocodone/apap) 5/325 q4-6prn max 2/d

# Screen



## Urine Drug Screen

Alcohol-Urine	NEGATIVE	Cutoff 100 mg/dL
Amphetamine-Urine	NEGATIVE	Cutoff 500 ng/mL
Barbiturates-Urine	NEGATIVE	Cutoff 200 ng/mL
Benzodiazepines-Urine	NEGATIVE	Cutoff 200 ng/mL
Cocaine-Urine	NEGATIVE	Cutoff 150 ng/mL
Fentanyl-Urine	NEGATIVE	Cutoff 2 ng/mL
Heroin (6-AM)-Urine	NEGATIVE	Cutoff 10 mg/dL
Methadone-Urine	NEGATIVE	Cutoff 100 ng/mL
Opiates-Urine	POSITIVE	Cutoff 300 ng/mL

# Confirmation



Legend	SUMMARY			
	Prescribed	Not Prescribed / Inconsistent		
✓ = Consistent ✕ = Inconsistent ◆ = Prescribed	✓ Norco™			
Test Ordered	Result	Cutoff	medMATCH™	Lab
PAIN MGMT,OPIATES EXPAND, QN,W/medMATCH,U			Endnote 1	AP
Morphine	Negative	50 ng/mL		
Oxymorphone	Negative	50 ng/mL		
<b>Hydromorphone</b>	<b>175 H</b>	50 ng/mL	See Note 1	
Codeine	Negative	50 ng/mL		
Oxycodone	Negative	50 ng/mL		
◆ <b>Hydrocodone</b>	<b>153 H</b>	50 ng/mL		

# Case #2



- 38 y/o caucasion female
  - Medications prescribed
    - ✦ Butrans patch (buprenorphine) 10mcg/hr patch qweek
    - ✦ Valium 5mg (pre-procedure)
      - Took 2 tablets 4 days prior to the urine drug monitoring test

# Screen



## Urine Drug Screen

Alcohol-Urine	NEGATIVE	Cutoff 100 mg/dL
Amphetamine-Urine	NEGATIVE	Cutoff 500 ng/mL
Barbiturates-Urine	NEGATIVE	Cutoff 200 ng/mL
<b>Benzodiazepines-Urine</b>	<b>POSITIVE</b>	Cutoff 200 ng/mL
Cocaine-Urine	NEGATIVE	Cutoff 150 ng/mL
Fentanyl-Urine	NEGATIVE	Cutoff 2 ng/mL
Heroin (6-AM)-Urine	NEGATIVE	Cutoff 10 mg/dL
Methadone-Urine	NEGATIVE	Cutoff 100 ng/mL
Opiates-Urine	NEGATIVE	Cutoff 300 ng/mL
Oxycodone-Urine	NEGATIVE	Cutoff 100 ng/mL



# Confirmation



Legend	SUMMARY			
✓ = Consistent ✗ = Inconsistent ♦ = Prescribed	Prescribed		Not Prescribed / Inconsistent	
	Buprenorphine	Gabapentin		
Test Ordered	Result	Cutoff	medMATCH™	Lab
PAIN MGMT, BUPRENORPHINE, QN,W/medMATCH,U			Endnote 1	AP
Buprenorphine	11.0 H	2 ng/mL		
♦ Norbuprenorphine	11.6 H	2 ng/mL	See Note 1	
PAIN MGMT,BENZODIAZEPINE, QN,W/medMATCH,U			Endnote 1	AP
Midazolam	Negative	50 ng/mL		
Alphahydroxyalprazolam	Negative	50 ng/mL		
Alphahydroxytriazolam	Negative	50 ng/mL		
Oxazepam	4147 H	50 ng/mL	See Note 2	
Lorazepam	Negative	50 ng/mL		
Nordiazepam	824 H	50 ng/mL	See Note 3	
Temazepam	2269 H	50 ng/mL	See Note 4	

# Case #3



- 81 y/o caucasion male
  - Medications prescribed
    - ✦ Oxycontin 20mg q12h rountinely
    - ✦ Percocet 7.5/325 1 po q4-6h prn max 2/d
    - ✦ Xanax 0.5mg 1 po prn severe anxiety
      - He takes 1 tablet occasionally for severe anxiety (max 15/month)

# Screen



## Urine Drug Screen

Alcohol-Urine	NEGATIVE	Cutoff 100 mg/dL
Amphetamine-Urine	NEGATIVE	Cutoff 500 ng/mL
Barbiturates-Urine	NEGATIVE	Cutoff 200 ng/mL
Benzodiazepines-Urine	POSITIVE	Cutoff 200 ng/mL
Cocaine-Urine	NEGATIVE	Cutoff 150 ng/mL
Fentanyl-Urine	POSITIVE	Cutoff 2 ng/mL
Heroin (6-AM)-Urine	NEGATIVE	Cutoff 10 mg/dL
Methadone-Urine	NEGATIVE	Cutoff 100 ng/mL
Opiates-Urine	POSITIVE	Cutoff 300 ng/mL
Oxycodone-Urine	POSITIVE	Cutoff 100 ng/mL
	NEGATIVE	Cutoff 25 ng/mL

# Confirmation



Legend	SUMMARY			
	Prescribed		Not Prescribed / Inconsistent	
✓ = Consistent ✗ = Inconsistent ◆ = Prescribed	✓ Oxycodone	✓ OxyContin™	✗ Alphahydroxyalprazolam	
Test Ordered	Result	Cutoff	medMATCH™	Lab
PAIN MGMT, FENTANYL, QN,W/medMATCH,U			Endnote 1	AP
Fentanyl	Negative	0.5 ng/mL		
Norfentanyl	Negative	0.5 ng/mL		
PAIN MGMT,BENZODIAZEPINE, QN,W/medMATCH,U			Endnote 1	AP
Midazolam	Negative	50 ng/mL		
<b>Alphahydroxyalprazolam</b>	<b>3101 H</b>	50 ng/mL	<b>INCONSISTENT</b>	
Alphahydroxytriazolam	Negative	50 ng/mL		
Oxazepam	Negative	50 ng/mL		
Lorazepam	Negative	50 ng/mL		
Nordiazepam	Negative	50 ng/mL		
Temazepam	Negative	50 ng/mL		
PAIN MGMT,OPIATES EXPAND, QN,W/medMATCH,U			Endnote 1	AP
Morphine	Negative	50 ng/mL		
<b>Oxymorphone</b>	<b>5534 H</b>	50 ng/mL	See Note 1	
Hydromorphone	Negative	50 ng/mL		
Codeine	Negative	50 ng/mL		
◆ <b>Oxycodone</b>	<b>10564 H</b>	50 ng/mL		
Hydrocodone	Negative	50 ng/mL		

Endnote 1

# Case #4



- 63 y/o caucasion female
  - Medications proscribed
    - ✦ Morphine Sulfate Extended Release 30mg 12h routinely
    - ✦ Norco 7.5/325 1 po q6-8h prn max 2/d

# Screen



## Urine Drug Screen

Alcohol-Urine	NEGATIVE	Cutoff 100 mg/dL
Amphetamine-Urine	POSITIVE	Cutoff 500 ng/mL
Barbiturates-Urine	NEGATIVE	Cutoff 200 ng/mL
Benzodiazepines-Urine	NEGATIVE	Cutoff 200 ng/mL
Cocaine-Urine	NEGATIVE	Cutoff 150 ng/mL
Fentanyl-Urine	NEGATIVE	Cutoff 2 ng/mL
Heroin (6-AM)-Urine	NEGATIVE	Cutoff 10 mg/dL
Methadone-Urine	NEGATIVE	Cutoff 100 ng/mL
Opiates-Urine	POSITIVE	Cutoff 300 ng/mL

# Confirmation



Legend	SUMMARY			
	Prescribed		Not Prescribed / Inconsistent	
	✗ Hydrocodone      ✗ Norco™ ✓ Morphine			
✓ = Consistent ✗ = Inconsistent ◆ = Prescribed				
Test Ordered	Result	Cutoff	medMATCH™	Lab
PAIN MGMT, AMPHETAMINES, QN,W/medMATCH,U			Endnote 1	AP
Amphetamine	Negative	250 ng/mL		
Methamphetamine	Negative	250 ng/mL		
PAIN MGMT,OPIATES EXPAND, QN,W/medMATCH,U			Endnote 1	AP
◆ Morphine	31903 H	50 ng/mL		
Oxymorphone	Negative	50 ng/mL		
Hydromorphone	565 H	50 ng/mL	See Note 1	
Codeine	Negative	50 ng/mL		
Oxycodone	Negative	50 ng/mL		
◆ Hydrocodone	Negative	50 ng/mL	INCONSISTENT	

# Case #5



- 49 y/o caucasion female
  - Initial new patient urine drug testing
    - ✦ (screen and confirmation)
  - Currently prescribed no medications
    - ✦ Due to initial new patient evaluation and screening tests indicating high ORT and other risk factors, no opioids prescribed at her initial visit



# Screen



## Urine Drug Screen

Amphetamine-Urine	NEGATIVE	Cutoff 500 ng/mL
Barbiturates-Urine	NEGATIVE	Cutoff 200 ng/mL
Benzodiazepines-Urine	NEGATIVE	Cutoff 200 ng/mL
Cocaine-Urine	POSITIVE	Cutoff 150 ng/mL
Fentanyl-Urine	NEGATIVE	Cutoff 2 ng/mL
Methadone-Urine	NEGATIVE	Cutoff 100 ng/mL
Opiates-Urine	NEGATIVE	Cutoff 300 ng/mL
Oxycodone-Urine	NEGATIVE	Cutoff 100 ng/mL
Phencyclidine-Urine	NEGATIVE	Cutoff 25 ng/mL
Tapentadol-Urine	NEGATIVE	Cutoff 200 ng/mL
Tramadol-Urine	NEGATIVE	Cutoff 200 ng/mL
Cannabinoid-Urine	POSITIVE	Cutoff 100 ng/mL
Creatinine-Urine	Normal	Normal
pH-Urine	7.08	4.70-7.80
Oxidants-Urine	NEGATIVE	Negative
Specific Gravity-Urine	1.024	1.003-1.035

# Confirmation



Legend	SUMMARY			
✓ = Consistent ✕ = Inconsistent ◆ = Prescribed	Prescribed	Not Prescribed / Inconsistent		
		✕ Marijuana Metabolite	✕ Benzoylecgonine	
Test Ordered	Result	Cutoff	medMATCH™	Lab
PAIN MGMT,MARIJUANA METAB QN,W/medMATCH,U			Endnote 1	AP
Marijuana Metabolite	333 H	5 ng/mL	INCONSISTENT	
PAIN MGMT, COCAINE METAB, QN,W/medMATCH,U			Endnote 1	AP
Benzoylecgonine	782 H	100 ng/mL	INCONSISTENT	