



**Testing the Waters:  
Urine Drug Screening for the Perplexed Among Us**

Mark Garofoli, PharmD, MBA, BCGP, CPE

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**Faculty**



- Family of 8 Pharmacists  
- Wife, In-Laws, & Cousins
- Family Vineyard in the Marche Region of Italy



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**Disclosures**

- Nothing to disclose

This presentation was not a part of the presenter's official duties at the WVU and does not represent the opinion of WVU



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**Learning Objectives**

- Identify the clinical practice implication differences between urine drug screenings and urine drug tests
- Describe anticipated results of urine drug screenings and urine drug tests, based on prescribed medications and utilized substances
- Recall common cross reactants for controlled substances in urine drug screenings



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**2016 CDC Chronic Pain Opioid Guidelines**



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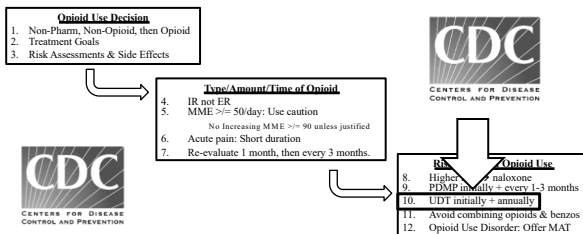
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**2016 CDC Chronic Pain Opioid Guidelines**



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### TRUST, but Verify



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### Urine Drug Monitoring (UDM)

Urine Drug Screening (UDS)

Urine Drug Testing (UDT)

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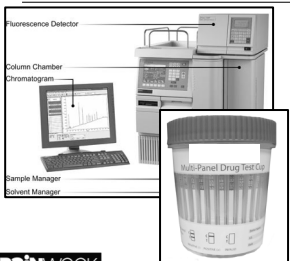
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### Urine Drug Monitoring



#### Goals

- Improve proper medication adherence
- Prevent ± detect medication misuse/diversion

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Wheeler, K., et al. © Urine Drug Screening: Practical Guide for Clinicians, Mayo Clin Proc. 2008;83(9):1171-8

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### Urine Drug Monitoring: Frequency

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Risk	Frequency
Low	Annual
Moderate	≥2x/Year
High	≥3x/Year
Any	? Every Appointment ?

**painweek** Adapted from: Mueller, K. et al. Urine Drug Screening: Practical Guide for Clinicians. Mayo Clin Proc. 2008;83(1):67-72.

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### Urine Drug Screening Strategies

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- Patient/provider agreement → UDM procedures
- Randomized or scheduled (eg, appointments)
- Urine samples collected in a private bathroom without running water, soap, hand sanitizer, or other liquids, and with toilet water stained blue
- Urine specimen cups with temperature strips that fluoresce between 90°F to 100°F
- Urine creatinine and specific gravity can be ordered together with a drug test panel



**painweek** Mueller, K. et al. Urine Drug Screening: Practical Guide for Clinicians. Mayo Clin Proc. 2008;83(1):67-72.

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### Debunking UDS Mythical Work-Arounds

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- 1. Home remedies**  
–Niacin, bleach, certo, vinegar, goldenseal, cranberry juice
- 2. Synthetic urine**
- 3. Dilution**
- 4. Substitution**  
–Someone else's urine

**painweek** Mueller, K. et al. Urine Drug Screening: Practical Guide for Clinicians. Mayo Clin Proc. 2008;83(1):67-72.

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**Online Urine Purchasing**  
www.thewhizzinator.com

The Whizzinator Touch in White   
 The Whizzinator Touch in Tan   
 The Whizzinator Touch in Latine   
 The Whizzinator Touch in Brown   
 The Whizzinator Touch in Black

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### Homemade Urine Recipe(s)

**Recipe 1**

- 976 ml of 0.02 mole hydrochloric acid solution
- 1.9 ml of 0.25 ammonia solution
- 14.1 g sodium chloride or table salt
- 2.8 g potassium chloride
- 17.3 g urea
- 0.6 g calcium chloride
- 0.43 g magnesium sulfate

**Recipe 2**

- 750 ml distilled water
- 7.5 g sodium chloride or table salt
- 50 mg albumin powder (bovine or egg)
- 4.5 g potassium chloride
- 4.8 g sodium phosphate (monobasic)
- 18.2 g urea
- 2 g creatinine

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### Urine Color

- ❖ The yellow coloration of urine results from urobilin that is produced as a product of bilirubin degradation
- ❖ Normal urine color: light yellow to golden

**AM I HYDRATED?**  
Urine Color Chart

1		If your urine matches this color, you are drinking enough fluids.
2		Drink more water to get the ideal color to shade 3 and 4.
3		Dehydrated
4		You may suffer from cramps and heat-related problems.
5		Health risk! Drink more water.
6		Health risk! Drink more water.
7		Health risk! Drink more water.
8		Health risk! Drink more water.

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Urine Color	Medications	Description
<b>Orange</b>	Chlorzoxazone, isoniazid, phenazopyridine, sulfasalazine, & warfarin	Consumption of carrots Monitor for sparse blood in urine (hematuria)
<b>Red</b>	Chlorzoxazone, ibuprofen, phenazopyridine, rifampin, senna, & warfarin	Consumption of red beets, rhubarb, or carrots Monitor for sparse blood in urine (hematuria) Myoglobinuria from rhabdomyolysis
<b>Brown</b>	Acetaminophen, metronidazole, & nitrofurantoin	Myoglobinuria from rhabdomyolysis ("hand drumming") Acute renal/hepatic disease Metastatic melanoma (rare reports)
<b>Purple</b>	Chlorzoxazone Combination of medications causing red or blue	Gram-negative bacteria
<b>Blue</b>	Amitriptyline, cimetidine, indomethacin, methocarbamol, metoclopramide, & zaleplon	Methylene blue
<b>Green</b>	Methocarbamol Medications causing blue (added to yellow urine)	Consumption of asparagus or black licorice UTI with pseudomonas
<b>White</b>	x	Calcium or phosphate crystals infection
<b>Black</b>	Methocarbamol, methyldopa/L-dopa, senna, & sorbitol	Phenol or copper poisoning Consumption of iodine Metastatic melanoma (rare reports)

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### Biologic Specimen Detection

Biologic Specimen	Detection Time After Ingestion					
	Minutes	Hours	Days	Weeks	Months	Years
Blood	X	X				
Saliva	X	X				
Urine	X	X	X			
Sweat	X	X	X	X		
Hair			X	X	X	X
Nails			X	X	X	X

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### Urine Drug Detection Times

Drug	Detection Time After Ingestion
Alcohol	7 to 12 hours
Amphetamines	2 to 3 days
Benzodiazepines (short-acting)	3 days
Benzodiazepines (long-acting)	30 days
Marijuana (single dose)	3 days
Marijuana (4x/week)	5 to 7 days
Marijuana (daily)	10 to 15 days
Marijuana (long-term)	>30 days
Codeine	2 days
Heroin	2 days
Hydromorphone	2 to 4 days
Methadone	3 days
Morphine	2 to 3 days
Oxycodone	2 to 4 days

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URINE DRUG MONITORING	
Urine Drug Screening (UDS)	Urine Drug Testing (UDT)
Immunoassay screen (ie, cup)	GC-MS or LC-MS
<b>PRESUMPTIVE</b>	<b>DEFINITIVE</b>
In-office, point-of-care, or lab-based	Laboratory, highly specific & sensitive
Results within minutes	Results in hours or days
Various cups detect a majority of legal & illicit medications by structural class	Measures all drug/metabolite concentrations
Guidance for preliminary treatment decisions	Definitive identification & analysis
Cross reactivity common: more false positives	False-positive results are rare
Higher cutoff levels: more false negatives	False-negative results are rare
<b>\$</b>	<b>\$\$\$</b>

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Wheeler, K. et al. Urine Drug Screening: Practical Guide for Clinicians. West Co. Press, 2008. 101-107.

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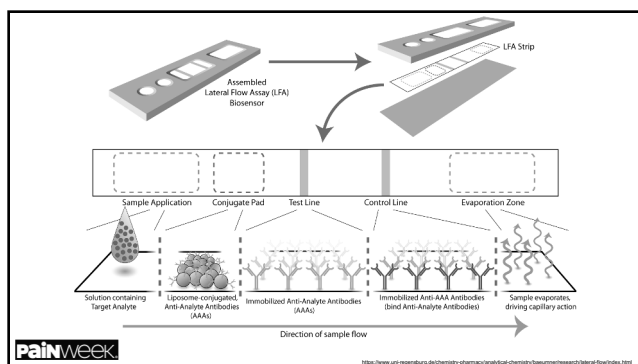
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### One Fancy Cup Immunoassay

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### Urine Drug Monitoring

Cut-Off Amounts (SAMSHA)

Chemical	UDS Cut-Off (ng/mL)	UDT Cut-Off (ng/mL)
THC	50	15
Opiates	2,000	2,000
Hydrocodone/hydromorphone	300	100
Oxycodone/oxymorphone	100	100
6-MAM	10	10
Amphetamines/meth/MDMA	500	250
Cocaine (benzoylecgonine)	150	100
PCP	25	25

**Painweek** Adapted from SAMSHA. <http://www.samhsa.gov/2k11/urine-drug-monitoring>

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### Opioid Structural Classes

Phenanthrenes		Benzomorphans	Phenylpiperidines	Dipheylheptanes	Phenylpropylamines
5 Rings	4 Rings	3 Rings	2 Rings	2 Rings	2 Rings
Buprenorphine Codeine Diacetylmorphine Hydrocodone Morphine Naloxone Oxycodone Oxymorphone	Butorphanol Levorphanol	Diphenoxylate Loperamide Pentazocine	Fentanyl Meperidine	Methadone Propoxyphene	Tapentadol Tramadol

**Painweek** Adapted from Yalkow MD, PGLCoffin AT. <http://www.painweek.com>

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### URINE DRUG SCREENS

SUBSTANCE	5 Panel	7 Panel	10 Panel	12 Panel	13 Panel	14 Panel
THC	X	X	X	X	X	X
Cocaine	X	X	X	X	X	X
Opiates	X	X	X	X	X	X
PCP	X	X	X	X	X	X
Amphetamines	X	X	X	X	X	X
Benzodiazepines		X	X	X	X	X
Barbiturates		X	X	X	X	X
Methadone			X	X	X	X
Propoxyphene			X	X	X	X
Quaaludes			X	X	X	X
Ecstasy				X	X	X
Oxycodone				X	X	X
Fentanyl					X	X
Meperidine					X	X
Buprenorphine						X

**Painweek** Stallard, K. et al. Urine Drug Screenings: Practical Guide for Clinicians. <http://www.painweek.com>

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### Urine Drug Screenings (UDS) Add-On Screenings

**6-MAM (6-AM)**  
**Synthetic cannabinoids**  
**Cathinones (bath salts)**  
**Dextromethorphan (DXM)**  
**Ethanol**  
**Propofol**  
**Methylphenidate**  
**Carisoprodol**  
**Zolpidem**  
**And so on...**

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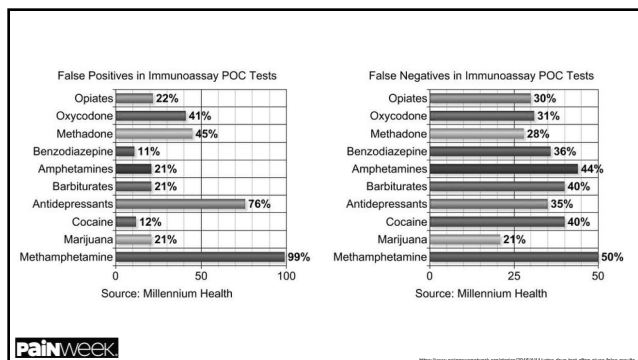
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Urine Drug Screening False Positives	
Substance	UDS Cross-Reactant
<b>Cannabinoids</b>	Dronabinol, NSAIDs (ibuprofen/naproxen), efavirenz, PPIs (pantoprazole), & promethazine
<b>Opioids</b>	chlorpromazine, dextromethorphan, diphenhydramine, doxylamine, poppy seeds, quinine, & quinolones, rifampin, & verapamil
<b>Amphetamines</b>	amantadine, bupropion, chlorpromazine, fluoxetine, labelalol, menthol, metformin, methylphenidate, phentermine, phenylephrine, promethazine, propranolol, pseudoephedrine, ranitidine, selegiline (L-meth/amphetamine metabolites), & trazodone
<b>PCP</b>	chlorpromazine, dextromethorphan, diphenhydramine, doxylamine, ibuprofen, imipramine, lamotrigine, meperidine, thioridazine, tramadol, & venlafaxine
<b>LSD</b>	amitriptyline, bupropion, buspirone, diltiazem, fentanyl, fluoxetine, labelalol, methylphenidate, metoprolamide, prochlorperazine, risperidone, sertraline, trazodone, & verapamil
<b>Barbiturates</b>	ibuprofen & naproxen
<b>Benzodiazepines</b>	oxaprozin, sertraline, & some herbals
<b>Alcohol</b>	asthma inhalers & isopropyl alcohol (short chain alcohol)
<b>Methadone</b>	quetiapine
<b>TCAs</b>	carbamazepine, cyclobenzaprine, diphenhydramine, hydroxyzine, & quetiapine

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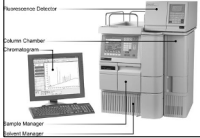
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### Urine Drug Monitoring

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**Conversation Starters**



**Conversation Leaders**

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### UDM Billing Terminology

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- **ELISA or EIA**
  - Enzyme-linked immunosorbent assay
  - Detects and measures antibodies in your blood
- **CLIA**
  - Clinical Laboratory Improvement Amendments of 1988
- **CLFS**
  - Clinical Laboratory Fee Schedule
- **CPT**
  - Current Procedural Terminology

➢ Insurers typically have an annual limit for how many screens/tests can be performed

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<https://www.cmaa.org/Connect-and-Educate/Medical-Learning-Network/M/NA/Member/About/Connect/CE/1901.pdf>

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### UDM Billing

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CPT Code AMA/CMS	<b>UDS</b> Presumptive/Qualitative Unlimited Drug Classes Includes Sample Validation	2018 Medicare Reimbursement Fee
80305	Immunoassay (Cup, Card, Cartridge, Dipstick) capable of being read by direct optical observation	\$13.46
80306	Immunoassay (Cup, Card, Cartridge, Dipstick) read by instrumented assisted direct optical observation	\$17.96
80307	Chemistry Analyzer (eg, EIA), Chromatography (eg, GC, HPLC), or Mass Spectrometry +/- Chromatography	\$71.83

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<https://www.cmaa.org/Connect-and-Educate/Medical-Learning-Network/M/NA/Member/About/Connect/CE/1901.pdf>

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### UDM Billing

UDM	CPT Code AMA/CMS	Description	2018 Medicare Reimbursement Fee
UDS	80307	Chemistry Analyzer (eg, EIA), Chromatography (eg, GC, HPLC), or Mass Spectrometry ± Chromatography	\$71.83
UDT	G0659	GC/LC with Mass Spectrometry in Physician's Office Lab (POL)	\$71.83



<https://www.cmaa.org/Outreach-and-Education/Medical-Learning-Network/M-NA-Medical-Clinical-Courtside-CE-18001.pdf>

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### UDM Billing

CPT Code AMA/CMS	UDT Definitive	2018 Medicare Reimbursement Fee
G0659	GC/LC with Mass Spectrometry in Physician's Office Lab (POL)	\$71.83
G0480	GC/LC with Mass Spectrometry with additional lab parameters (1 to 7 Drugs)	\$114.43
G0481	GC/LC with Mass Spectrometry with additional lab parameters (8 to 14 Drugs)	\$156.59
G0482	GC/LC with Mass Spectrometry with additional lab parameters (15 to 21 Drugs)	\$198.74
G0483	GC/LC with Mass Spectrometry with additional lab parameters (≥22 Drugs)	\$246.92



<https://www.cmaa.org/Outreach-and-Education/Medical-Learning-Network/M-NA-Medical-Clinical-Courtside-CE-18001.pdf>

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### UDM Positivity Rates

- Lab can provide your practice's rate of specific substances being positively identified in urine monitoring
- If 0% repeatedly for specific substances, one could possibly consider eliminating that urine monitoring
- However, drug utilization trends change and adapt over time



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### Profitable Pee

## Maryland Medicaid program bans some drug testing due to costs



By Meredith Cahn • Contact Reporter  
The Baltimore Sun

FEBRUARY 15, 2016, 3:30 PM

The greatest rivalries in  
criminal history are alive  
National Law Enforcement



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## National Urine Drug Tests Overall Positive Results

Overall Positivity by 3-Digit Zip Code  
Urine Drug Tests  
January - December 2018

Percent Positive  
■ 5.5% to 10%  
■ 4.5% to 5.5%  
■ 3.5% to 4.5%  
■ 2.5% to 3.5%  
■ 0.0% to 2.5%  
□ Insufficient Data



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## National Urine Drug Tests PCP Positive Results

PCP Positivity by 3-Digit Zip Code  
Urine Drug Tests  
January - December 2018

Percent Positive  
■ 0.1% to 0.5%  
■ 0.02% to 0.1%  
■ 0.01% to 0.03%  
■ 0.001% to 0.01%  
■ 0.0% to 0.001%  
□ Insufficient Data



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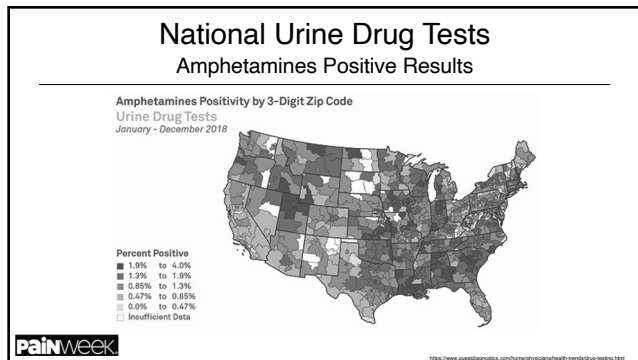
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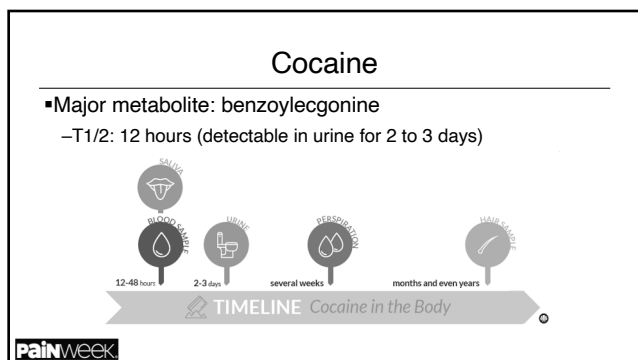
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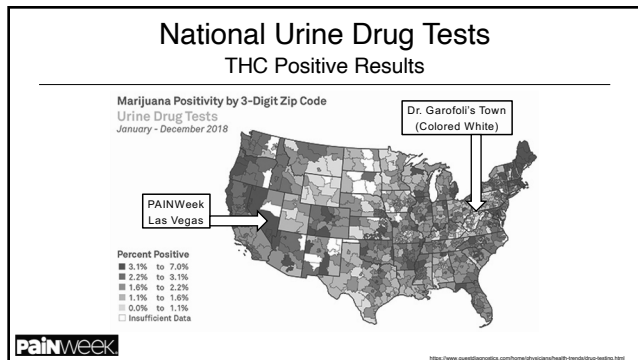
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### Cannabinoids

- THC metabolite: THC-COOH
  - Carboxylic acid group added to allow for kidney excretion
- CBD should not screen (+) for THC, however
  - High % of products contain other substances (eg, THC)
  - JAMA 2017 study: 26 of 84 (~30%) CBD extracts had accurate labels
  - Structures are very similar

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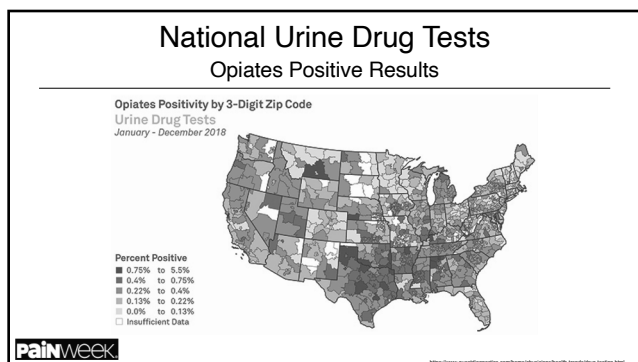
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### Patient Cases



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#### Patient Case #1

Prescribed oxycodone

- Conduct a pill count and complete history
- Pick UDS panel to evaluate adherence

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#### Patient Case #1

Prescribed oxycodone

- Conduct a pill count and complete history
- Pick UDS panel to evaluate adherence

URINE DRUG SCREENS				
SUBSTANCE	5 Panel	7 Panel	10 Panel	12 Panel
THC	X	X	X	X
Cocaine	X	X	X	X
Opiates	X	X	X	X
PCP	X	X	X	X
Amphetamines	X	X	X	X
Benzodiazepines		X	X	X
Barbiturates		X	X	X
Methadone			X	X
Propoxyphene			X	X
Quaaludes			X	X
Ecstasy				X
Oxycodone				X

**Painweek**

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**Patient Case #2**

UDS 12 pain panel

- Lower than expected pill count
  - Diverted the rest?
  - Took a pill a few hours prior to UDS?
- Gradual (if any) opioid taper needed?

UDS 12 Pain Panel	Result
Marijuana (THC)	-
Cocaine	-
Opiates	-
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-
Methadone	-
Propoxyphene	-
Quaaludes	-
MDMA (Ecstasy)	-
OXYCODONE	+

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**Patient Case #2**

UDS 12 pain panel

- Lower than expected pill count
  - Diverted the rest?
  - Took a pill a few hours prior to UDS?
- Gradual (if any) opioid taper needed?

UDT	Result
OXYCODONE	+
Oxymorphone	-
Noroxycodone	-

UDS 12 Pain Panel	Result
Marijuana (THC)	-
Cocaine	-
Opiates	-
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-
Methadone	-
Propoxyphene	-
Quaaludes	-
MDMA (Ecstasy)	-
OXYCODONE	+

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**Patient Case #3**

- Verified current medication list (April)
  - Dextromethorphan, diphenhydramine, MVI, & lisinopril

UDS 7 Panel	Result
Marijuana (THC)	-
Cocaine	-
<b>OPIATES</b>	<b>+</b>
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-

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**Patient Case #3**

- Verified current medication list (April)
  - Dextromethorphan, diphenhydramine, MVI, & lisinopril

UDT	Result
Morphine	-
6-MAM	-
Oxycodone	-
Oxymorphone	-
Noroxycodone	-
<b>DEXTROMETHORPHAN</b>	<b>+</b>
<b>DIPHENHYDRAMINE</b>	<b>+</b>

UDS 7 Panel	Result
Marijuana (THC)	-
Cocaine	-
<b>OPIATES</b>	<b>+</b>
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-



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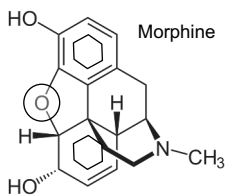
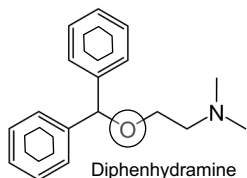
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**Structurally Speaking...**



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**Dextromethorphan (DXM)**

Dose (mg)	Effects
Low	Cough suppressant
Moderate	Pain management
100-200	Mild stimulation
201-400	Euphoria & hallucinations
540	Distorted vision & coordination
601-1500	Dissociative sedation

**Drug Facts**  
 Active ingredient (in each 5 mL) Dextromethorphan polistirex equivalent to 30 mg dextromethorphan hydrobromide. Purpose Cough suppressant.



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### Chirality



Samuel-L-Jackson
Samuel-D-Jackson




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### DXM

"Smartphone in Right Hand"



**Dextromethorphan (DXM)**

CN1CC2C(C1)C(C)C2

Methyl group

→

CYP-2D6

O-demethylation

**Dextrorphan (DXO)**  
"D(+)" enantiomer of racemorphan


Right

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**Levorphanol**  
"L(-)" enantiomer of racemorphan

MME: 11

Left



Clinical Pharmacology Online Database, 2016

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## Human Mind Maturing at Age 25...

# Chain Drug Review

RETAIL NEWS SUPPLIER NEWS BUSINESS PHARMACY TECHNOLOGY OPINION LATEST ISSUES- CDR BLOG VIDEOS SLIDESHOWS

### West Virginia becomes 18th state to adopt age-18 sales law on cough medicine



https://www.painweek.com/news/west-virginia-becomes-18th-state-to-adopt-age-18-sales-law-on-cough-medicine/

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**Patient Case #4**

- Patient currently not utilizing any medications

UDS 7 Panel	Result
Marijuana (THC)	-
Cocaine	-
<b>OPIATES</b>	<b>+</b>
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-

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**Patient Case #4**

- Patient currently not utilizing any medications
  - Aunt Doreen's Easter Bread
  - Poppy Seeds

UDT	Result
<b>MORPHINE</b>	<b>+</b>
6-MAM	-
Oxycodone	-
Oxymorphone	-
Noroxycodone	-

UDS 7 Panel	Result
Marijuana (THC)	-
Cocaine	-
<b>OPIATES</b>	<b>+</b>
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-

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**“Poppy Seed Defense”**

- Poppy seeds do not contain opium but are coated by it
- Concentration of coating varies, depending on
  - Amount of rainfall during the curing of the seed pods;
  - Washing of the seeds
- Bread, bagels, muffins, pastries, smoothies, fillings, etc
- Approximately 1 TSP poppy seeds may result in false-positive UDS for opiates
- Cake material: morphine urine concentrations can be in thousands of ng/mL<sup>2</sup>
- Bagels: morphine urine concentrations can be in hundreds of ng/mL<sup>3</sup>

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1. https://pubmed.ncbi.nlm.nih.gov/30199688/  
2. Thomas M, Calkins J, et al. Evidence of Morphine and Codeine After Consumption of Poppy Seeds. J Anal Toxicol. 2003;27  
3. Berman TP, Mittleman B. The Determination of Morphine in Urine and Hair After Consumption of Poppy Seeds. J Anal Toxicol. 2004;28

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**“Poppy Seed Defense”**

2015 Mayo Clinic Case Study

Patient reported drinking tea prepared from 1 to 2 POUNDS of poppy seeds daily (OWS upon discontinuation). The patient’s LCMS results included:

- Morphine 37,600 ng/mL
- Codeine 2,580 ng/mL
- Hydromorphone 1,430 ng/mL

- Thebaine: Short T1/2 (similar to 6-MAM)
- Codeine & Morphine produce <11% hydrocodone & <2.5% hydromorphone
  - >These 2 metabolites have not been reported with poppy seed use
  - >1,430/37,600 = 3.8% (In other words, >2.5%)



Patenaik A, et al. Interpreting Urine Drug Screen Results in the Context of Poppy Seed Use. Mayo Clinic Proceedings. 2015;92(12):1712-1715.

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**Patient Case #5**

- Broken arm, patient not happy about needing to conduct a UDS due to recent UTI
- You ask how long ago the UTI was, and patient says it still hurts

Which of the following antibiotics could produce a false positive UDS for opiates?

- a) Azithromycin
- b) Cefdinir
- c) Cephalexin
- d) Ciprofloxacin



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**Patient Case #5**

- Broken arm, patient not happy about needing to conduct a UDS due to recent UTI
- You ask how long ago the UTI was, and patient says it still hurts

Which of the following antibiotics could produce a false positive UDS for opiates?

- a) Azithromycin
- b) Cefdinir
- c) Cephalexin
- d) CIPROFLOXACIN\*



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**Patient Case #6**

- Patient currently not utilizing any medications

UDS 7 Panel	Result
MARIJUANA (THC)	+
Cocaine	-
Opiates	-
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-



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**Patient Case #6**

- Patient currently not utilizing any medications
- Ibuprofen 200 mg PRN
- Didn't remember buying at The Dollar Store
- Recently taken while gardening



UDT	Result
THC	-
Amphetamine	-
Morphine	-
Oxycodone	-

UDS 7 Panel	Result
MARIJUANA (THC)	+
Cocaine	-
Opiates	-
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-



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**Patient Case #7**

- Patient attempted to falsify the UDS by ingesting goldenseal
- Goldenseal is an herb in the buttercup family with a large yellow root, native in southeastern Canada and the northeastern United States.



UDT	Result
THC	+
Amphetamine	-
Morphine	-
Oxycodone	-

UDS 7 Panel	Result
MARIJUANA (THC)	+
Cocaine	-
Opiates	-
PCP	-
Amphetamines	-
Benzodiazepines	-
Barbiturates	-



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### Goldenseal: Myth, Legend, Fact, Fiction?

- John Uri Lloyd, a pharmacist, wrote the fiction novel "Stringtown on the Pike" in 1890, involving a murder with a victim having strychnine in the stomach.
- The murder victim's morning habit of taking bitters (an ingredient of which was goldenseal), was the cause of the false positive for the deadly poison.
- Two recent scientific studies have showed no effect of goldenseal on urine drug tests. Subjects who drank large amounts of water had the same urine drug levels as subjects who took goldenseal pills with the water.



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### Goldenseal: Myth, Legend, Fact, Fiction?

I have to take a drug test on MOnday and last time I smoked was Wed night. U usually smoke a couple times a week- maybe a joint here and there.

the test is called 35105N SAP 5-50 w/nit

So, my fiance told me golden seal worked for him before. He told me to drink tons of water today and tomorrow and then just regularly on Sunday so I'm not overhydrated. Will this work??

If it helps, I'm 6'1, 165lbs and exercises regularly (2 to 3times per week) and am female.

Thanks a ton if anyone can help me!

lustywrench, May 21, 2004



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### Goldenseal: Myth, Legend, Fact, Fiction?

**so i passed**

So, I passed the test, cause I start my job tomorrow...thanks for the advice everyone

FYI- I did take golden seal and drank over 100 ounces water fri and sat. each and ate meat. Sunday I didn't overdrink water but started taking aspirin regularly. Then Mon. before test I took aspirin 4 hours before test and drank a powerade an hour before. it worked so I don't know which part was helpful, but frankly at this point I don't care cause I got JOB now!

Thanks

lustywrench, May 25, 2004



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**Patient Case #8**

- Confirmed current medication list
  - Acetaminophen/codeine #4 Q 4 hours PRN
  - Ibuprofen 200mg Q 6 hours PRN
- Pharmacogenomics (CYP450-2D6)?
- “Overuse” due to sub-potent opioid?
- Illicit use of other opioids?



UDT	Result
Metadone	-
EDDP	-
<b>MORPHINE</b>	<b>+</b>
6-MAM	-
<b>HYDROMORPHONE</b>	<b>+</b>
<b>HYDROCODONE</b>	<b>+</b>
<b>DIHYDROCODEINE</b>	<b>+</b>
Oxycodone	-
Oxymorphone	-
Noroxycodone	-

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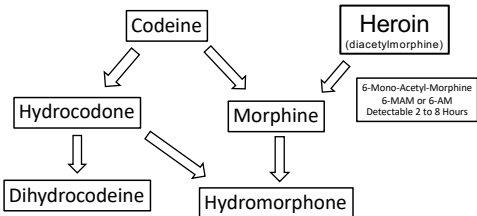
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**Opioid Metabolism**  
Active Metabolites



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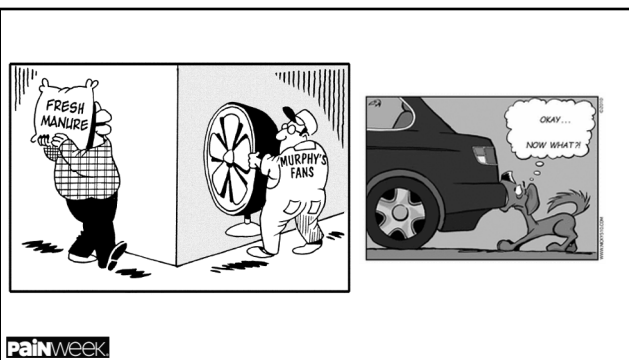
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### Patient Dismissal



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### Confirmed Drug Seeking or Diversion

- Reference the patient and provider agreement/contract
- Treatment can continue with noncontrolled substance therapies
- Refer to a substance use disorder specialist/program, or an entity that can connect
- Contact law enforcement if concern for the safety of the patient or others exists
- Respect for all those directly or indirectly involved in the specific patient case should be upheld, while also ensuring both a procession within federal/state laws and an appropriate level of patient care

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### Avoid Patient Abandonment

1. DOCUMENT everything thoroughly
2. Patient signs termination letter in person with a witness (or certified mail return receipt)
  - Provide at least a 30-day notice in the letter and offer to continue medical treatment for that time period
  - Stress the importance of continued medical care and potential consequences of not getting that care
  - Refer the patient to a number of professionals whom may accept the patient for care
  - Offer to promptly transfer medical records to the new provider once established

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Palmer D, et al. Avoid Medical Abandonment: Chronic Opioid Analgesic Therapy. Case Report. Pain Medicine Volume 19, Issue 4, 1 May 2018. Pages 772-781

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[https://www.deadiversion.usdoj.gov/tips\\_online.htm](https://www.deadiversion.usdoj.gov/tips_online.htm)

1-877-RX-Abuse  
(1-877-792-2873)

**Anonymous**

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WVU Medicine Center for Integrative Pain Management

- ALL patients have a UDT (GCMS)
- Results available within 24 hours
- Results provided via secure online portal website
  - Preset notification settings (timing, specific results, etc)
- Violators receive a certified letter
- Conversation....

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<https://www.wvu.edu/~medicine/centralhospital/central/central-specialty-clinics/pain-management-center>

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To Infinity, and Beyond...

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**Audience Question #1**

A urine drug screening (UDS) is confirmatory and quantitative, whereas a urine drug testing (UDT) is presumptive and qualitative.

- a) True
- b) False



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**Audience Question #1 (ANSWER)**

A urine drug screening (UDS) is confirmatory and quantitative, whereas a urine drug testing (UDT) is presumptive and qualitative.

- a) True
- b) FALSE [CORRECT ANSWER]



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**Audience Question #2**

A 35yo patient with chronic lower back pain, well managed with PT, CBT, and OTC naproxen 220 mg 3 times daily. Patient screens opiate +, yet denies opioid utilization. Patient mentions having utilized a nighttime over-the-counter medication to help sleep with a cold recently. Which of the following OTC medications could cause of a false opiate + UDS result?

- a) Only dextromethorphan
- b) Only diphenhydramine
- c) Both dextromethorphan and diphenhydramine
- d) Neither dextromethorphan nor diphenhydramine



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### Audience Question #2 (ANSWER)

A 35yo patient with chronic lower back pain, well managed with PT, CBT, and OTC naproxen 220 mg 3 times daily. Patient screens opiate +, yet denies opioid utilization. Patient mentions having utilized a nighttime over-the-counter medication to help sleep with a cold recently. Which of the following OTC medications could cause of a false opiate + UDS result?

- a) Only dextromethorphan
- b) Only diphenhydramine
- c) BOTH DEXTROMETHORPHAN AND DIPHENHYDRAMINE  
[CORRECT ANSWER]
- d) Neither dextromethorphan nor diphenhydramine




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### Audience Question #3

Which of the following medications can possibly produce a false positive urine drug screenings for marijuana (THC)?

- a) Ibuprofen
- b) Omeprazole
- c) Promethazine
- d) All of the above




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### Audience Question #3 (ANSWER)

Which of the following medications can possibly produce a false positive urine drug screenings for marijuana (THC)?

- a) Ibuprofen
- b) Omeprazole
- c) Promethazine
- d) ALL OF THE ABOVE [CORRECT ANSWER]




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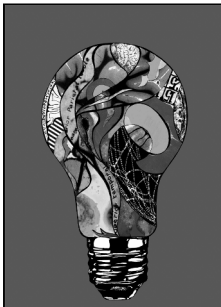
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**QUESTIONS!**

Questions? Please submit them in the Q&A field below.

If you have additional questions about this activity, please contact [info@painweek.org](mailto:info@painweek.org)



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