Opioid Addiction Treatment ECHO

For Providers and Primary Care Teams

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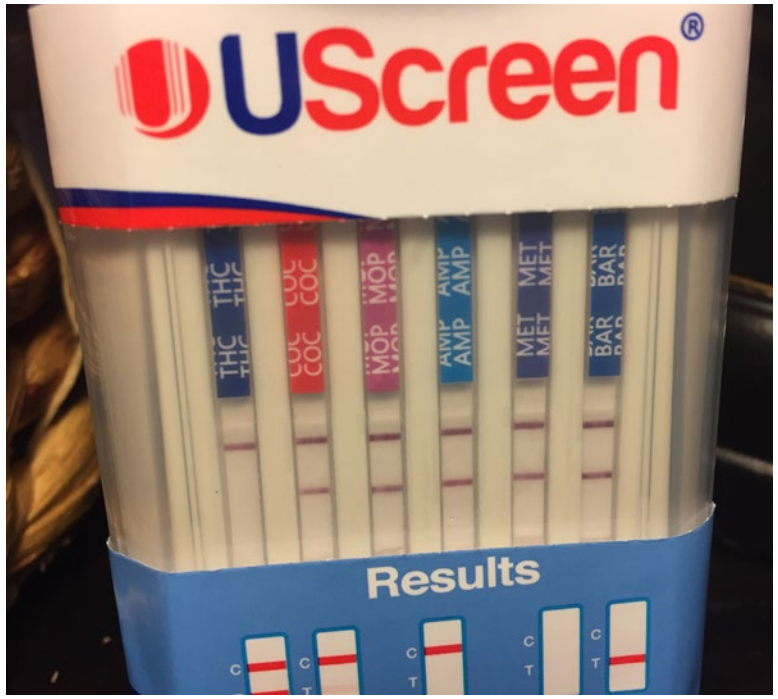
Learning Objectives

1. Discuss common clinic concerns in taking care of patients on buprenorphine
    - Urine drug testing, the pitfalls
    - Continued use: what next?
    - Diversion, its important but …
    - The patient who wants early refills


URINALYSIS.
I'M PISSED.

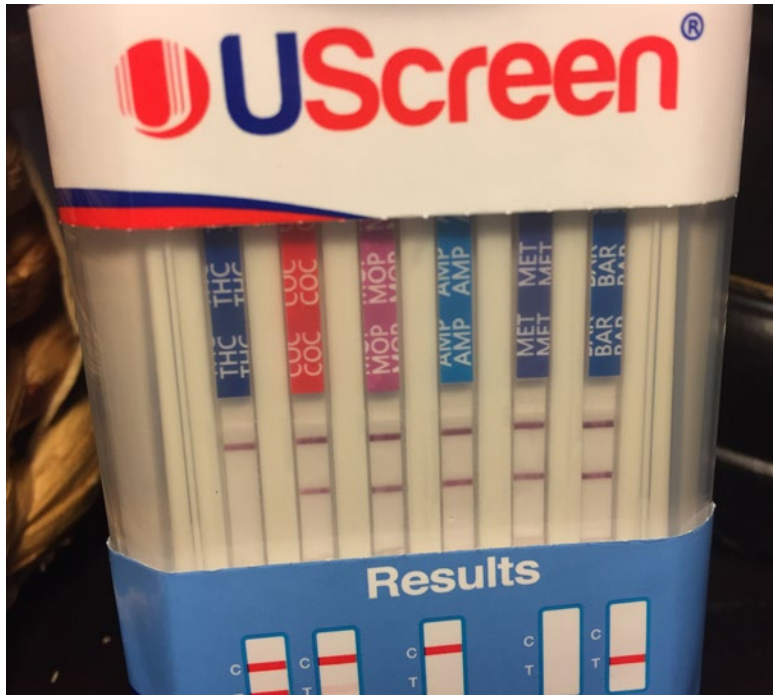
Urine Drug Screens

- Familiarize yourself with what is available through your lab and toxicologist (ELISA vs Confirmation)

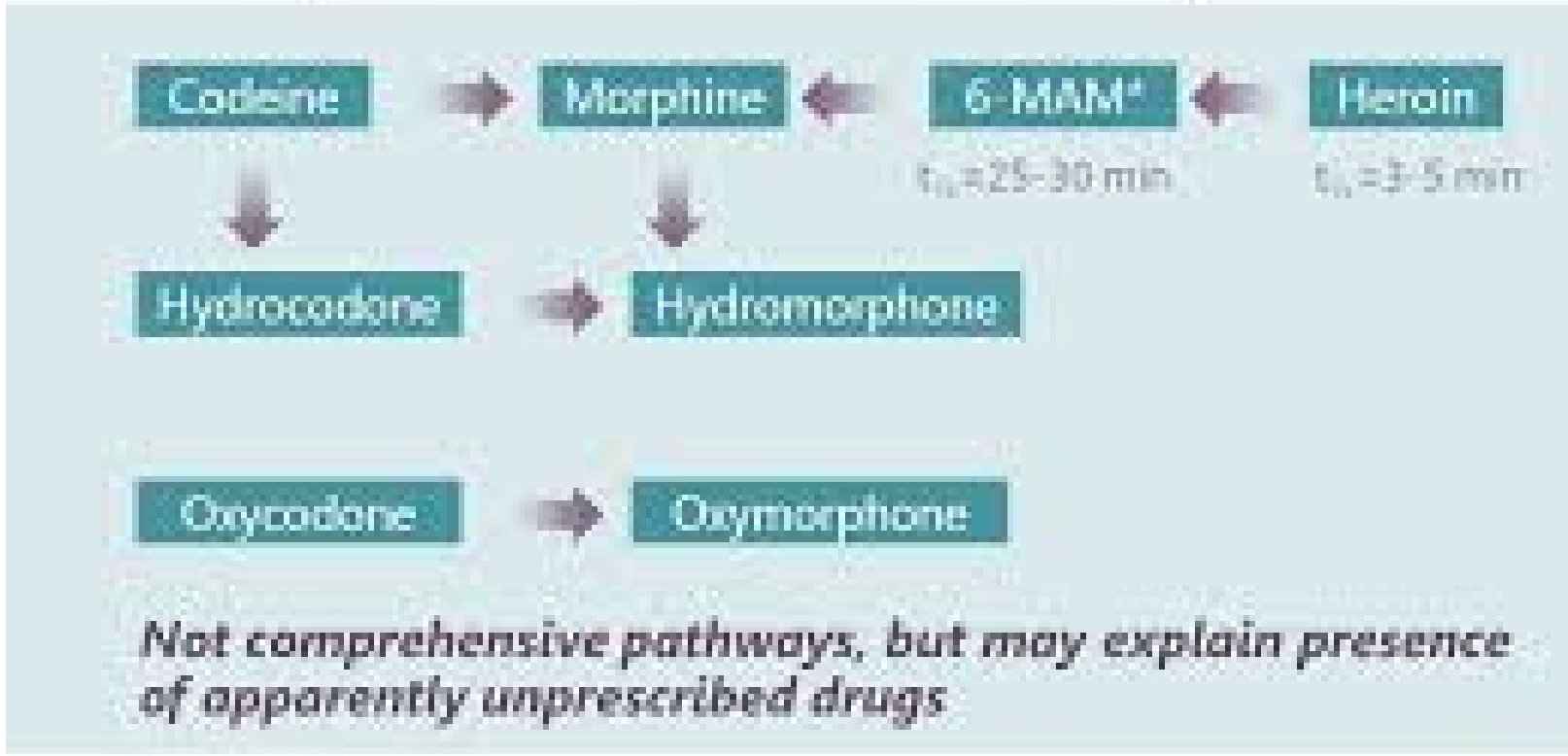


Urine Drug Screens

- Familiarize yourself with what is available through your lab and toxicologist (ELISA vs Confirmation)
- - know the cutoffs
  - know the metabolism of the drugs you test
  - know their elimination half lives
  - know the sensitivity and specificity of the test



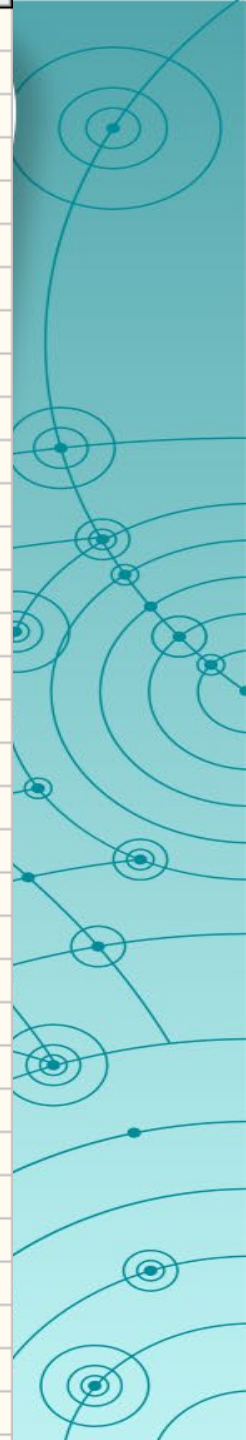
Examples of Metabolism of Opioids



Urine Drug Screens

Jul 05, 2019 13:26	Opiates	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Oxycodone	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Cocaine	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Amphetamines	Presumptive Positive, Confirmatory LCMS to fol		mAbs	Ref: Presumptive Negative
	METHAMPHETAMINE LCMS	>1000		ng/mL	Cutoff: 50 ng/mL -
	AMPHETAMINE LCMS	1631.26		ng/mL	Cutoff: 100 ng/mL -
	Benzodiazepines	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Methadone	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Phencyclidine	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Cannabinoids	Presumptive Negative		mAbs	Ref: Presumptive Negative
	Barbiturates	Presumptive Negative		mAbs	Ref: Presumptive Negative
	URINE CREATININE	243.8		mg/dL	40.0 - 278.0

Jul 12, 2019 12:06	OXYMORPHONE LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	Cocaine	Presumptive Negative		mAbs	Ref: Presumptive Negative
	BENZOYLECGONINE LCMS	None Detected		ng/mL	Cutoff: 30 ng/mL -
	Amphetamines	Presumptive Negative		mAbs	Ref: Presumptive Negative
	METHAMPHETAMINE LCMS	<50		ng/mL	Cutoff: 50 ng/mL -
	AMPHETAMINE LCMS	None Detected		ng/mL	Cutoff: 100 ng/mL -
	Benzodiazepines	Presumptive Negative		mAbs	Ref: Presumptive Negative
	NORDIAZEPAM LCMS	None Detected		ng/mL	Cutoff: 40 ng/mL -
	OXAZEPAM LCMS	None Detected		ng/mL	Cutoff: 40 ng/mL -
	TEMAZEPAM LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	ALPRAZOLAM LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	a-OH-ALPRAZOLAM LCMS	None Detected		ng/mL	Cutoff: 20 ng/mL -
	7-AMINO-CLONAZEPAM LCMS	None Detected		ng/mL	Cutoff: 20 ng/mL -
	LORAZEPAM LCMS	None Detected		ng/mL	Cutoff: 40 ng/mL -
	Methadone	Presumptive Negative		mAbs	Ref: Presumptive Negative
	METHADONE LCMS	None Detected		ng/mL	Cutoff: 100 ng/mL -
	EDDP LCMS	None Detected		ng/mL	Cutoff: 100 ng/mL -
	Phencyclidine	Presumptive Negative		mAbs	Ref: Presumptive Negative
	PCP LCMS	None Detected		ng/mL	Cutoff: 10 ng/mL -
	Cannabinoids	Presumptive Negative		mAbs	Ref: Presumptive Negative
	THC-COOH LCMS	None Detected		ng/mL	Cutoff: 30 ng/mL -
	Comprehensive LCMS	Complete			
	Barbiturates	Presumptive Negative		mAbs	Ref: Presumptive Negative
	BUTALBITAL LCMS	None Detected		ng/mL	Cutoff: 200 ng/mL -
	PHENOBARBITAL LCMS	None Detected		ng/mL	Cutoff: 200 ng/mL -
	FENTANYL LCMS	None Detected		ng/mL	Cutoff: 2 ng/mL -
	NORFENTANYL LCMS	None Detected		ng/mL	Cutoff: 8 ng/mL -
	MDPV LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	MEPHEDRONE LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	METHYLONE LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	MDMA LCMS	None Detected		ng/mL	Cutoff: 100 ng/mL -
	MEPERIDINE LCMS	None Detected		ng/mL	Cutoff: 50 ng/mL -
	ZOLPIDEM METABOLITE LCMS	None Detected		ng/mL	Cutoff: 10 ng/mL -

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DATA FROM DEA AGENTS

Table II. All Samples Containing Detectable Methamphetamine from the 101 Samples Tested*

Sample Number	Concentration (ng/mL)	Date Sample Collected	Sample Number	Concentration (ng/ml)	Collected
1†	9.	5/8/2002	28	27	1/28/2004
2	43.	5/8/2002	29	3.	6/15/2004
3	15	5/8/2002	30	2.3	6/15/2004
4†	16	9/24/2002	31	10.	6/15/2004
5	36	9/24/2002	32	11.	6/15/2004
6	1.6	9/24/2002	33	2.6	6/15/2004
7	11	9/24/2002	34	10.	9/9/2004
8	13	9/24/2002	35	5.4	9/9/2004
9	6.7	31/2003	36	10.	9/9/2004
10	15	1/31/2003	37	12.	9/9/2004
11	3.1	1/31/2003			
12	4.	1/31/2003			
13	12	1/23/2003			
14	5	1/23/2003			
15	262	1/23/2003			

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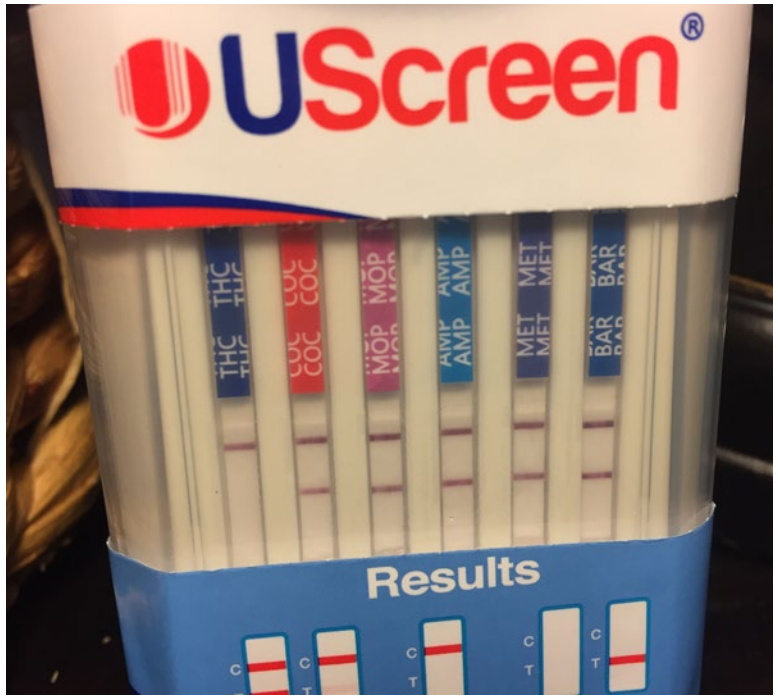
* Note that the limit of quantitation was 15 ng/mL, and the limit of detection was 1 ng/mL. Values less than 15 ng/mL are given because all chromatographic acceptance criteria were acceptable, indicating the presence

Common Urine Drug Screens

- Opiates – will include heroin, morphine, hydrocodone
  - Will NOT include oxycodone, methadone, fentanyl, buprenorphine (buprenorphine)
  - Poppy seed ingestion is a real thing
- Cocaine – false positives are highly unusual but…
- Benzodiazepines- low sensitivity and specificity
- Marijuana – may stay positive for 28 days in frequent user, CBD oil may contain THC in very small
- Amphetamines/PCP – false positives common

Urine Drug Screens

- Have a way to confirm unexpected results
- Do not base treatment decisions solely on urine drug screen results
- Ask patients what you will find
- No need to “catch” patient in a lie – be upfront about results



SUBSTITUTION

Interpretation of Urine Dilution

- Value < 20 mg/dL suggests water ingestion
- The amount of H20 required to dilute the urine will vary greatly (can be as little as 16 ounces) – it is not always intentional
- Must interpret with the clinical history
- Ask about diuretics and diabetes
- Value < 10 mg/dl strongly suggest intentional ingestion
- Value < 5 inconsistent with urine

How to approach patient who absolutely denies use despite positive urine

- Consider confirmatory testing with quantitative levels
- Do not focus on patient characteristics “you must have relapsed” but focus on result “the urine was positive for opioids”and I am concerned about your recovery
- If patient reluctant to intensify treatment, present this as standard care and not a personal decision
- Invite the patient “If you had a patient with this result who denied it what would you do?”

Addressing Continued Use

- Return to use is expected and will vary in severity
- Do not stop treatment for positive urine
- Intensify treatment plan through more frequent visits, urine drug screens, and psychosocial supports
- Have a guide for when you will refer for higher level of care (i.e., IOP, new MAT, more therapy)
- Is the patient on an adequate dose?

Should treatment ever be stopped????

- When there are safety concerns (overdosing on the medications being used to treat)
- Disruptive behaviors to other clients and staff
- Total nonengagement

- Weigh the risk of overdose on the street vs continued treatment
- Some patients require the structure of a choice

Diversion

- Use of non-prescribed buprenorphine on the street is most often to self-treat withdrawal
- Patients may divert to help another friend/family member
- Educate patients up front about importance of not diverting
- 423 deaths from buprenorphine overdose 2002-213*
- Take steps to minimize the risk but do not become the police
  - communicate, more frequent visits, smallest dose that is effective, monitored urines with bup levels, pill count policy

* A Review of Buprenorphine Diversion and Misuse: J Addict Medicine 2014 Sep-Oct 8(5)

Urine Buprenorphine testing

- Buprenorphine → norbuprenorphine + bup 3 glucuronide
- Urine levels do not correlate well with dose
- Total norbup > buprenorphine but not always (80-100%) - time of dosing to collection impacts this ratio
- Bup without metabolite likely adulterated specimen
  Bup > 750-1000 with metabolite- likely adulteration
- Metabolite alone- tail end of or dilute

The patient wants an early refill

The first question is WHY?
- Cravings not controlled
- Withdrawal at end of day
- Using it to control pain
- Helps anxiety
- When I take a pill it makes me feel better
- I share with someone I care about
- Someone stole it
- I lost it
- Diversion