



Urine Toxicology Interpretation

Immersion Training in Addiction Medicine
Programs 2025

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LEARNING OBJECTIVES

By the end of this didactic learners will be able to:

- Describe the utility and limitations of drug testing
- Define different types of drug tests
- Identify factors that impact drug test results

A QUICK STORY

DRUG TESTING DOES NOT:

- Diagnose SUD
- Rule out a SUD
- Detect every substance a patient may use
- Single handedly provide justification to stop prescribing opioids/other medications to patients

DRUG TESTING DOES:

- Inform the patient and the clinician
- Detect when certain substances have been used within a particular window of time
- Facilitate the implementation of contingency management
- Impact the patient-provider relationship

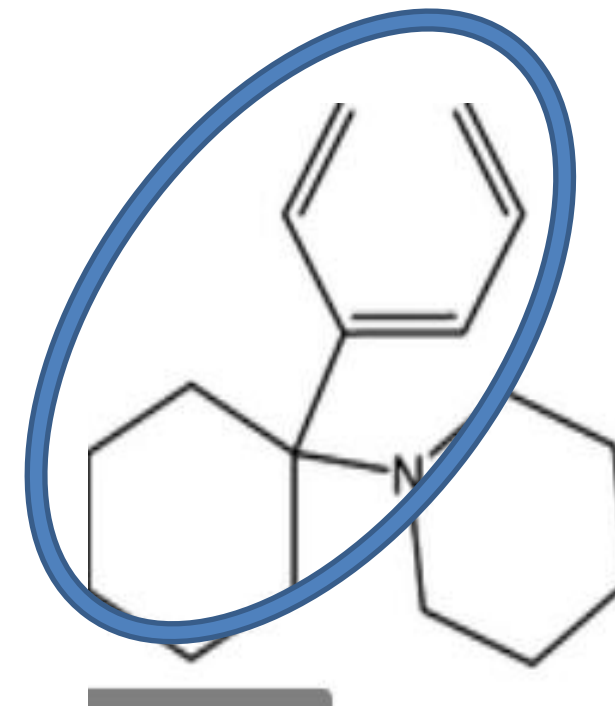


TYPES OF URINE DRUG TESTS

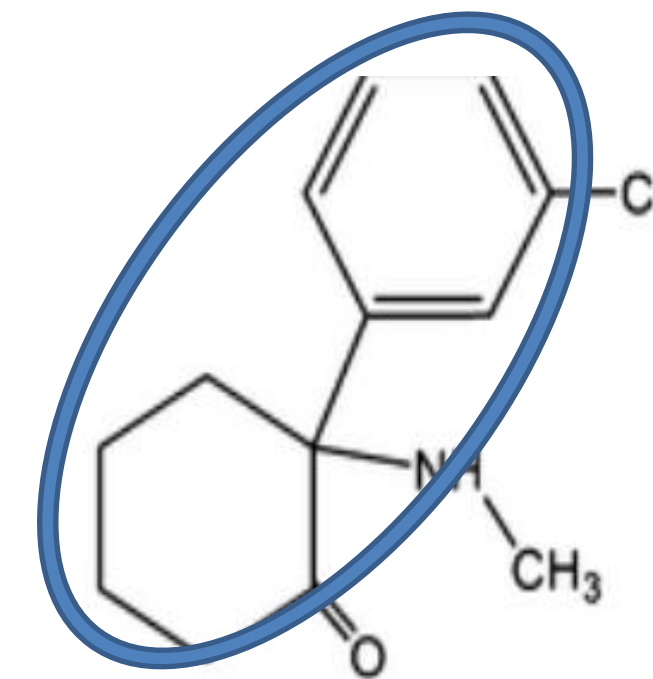
QUALITATIVE -IMMUNOASSAYS

- Screening
- Identifies drug classes
- POCT/In office/Lab
- Fast and inexpensive
- Sensitive not specific
- High rate of false positives/negatives

<input checked="" type="checkbox"/> Buprenorphine, Urine	NEG	POS !
Comment: THIS IS A SCREENING ASSAY ONLY AND RESULTS ARE REPORTED AS PRESUMPTIVE POSITIVE OR NEGATIVE, USING A CUTOFF CONCENTRATION OF 20 NG/ML. RESULTS ARE TO BE USED FOR CLINICAL EVALUATION ONLY. CONFIRMATION TESTING WAS NOT PERFORMED. FALSE POSITIVE BUPRENORPHINE RESULTS MAY OCCUR IN PATIENTS TAKING OTHER OPIOIDS.		
<input checked="" type="checkbox"/> Oxycodone, Urine	NEG	NEG
Comment: THIS IS A SCREENING ASSAY ONLY AND RESULTS ARE REPORTED AS PRESUMPTIVE POSITIVE OR NEGATIVE, USING A CUTOFF CONCENTRATION OF 100 NG/ML. RESULTS ARE TO BE USED FOR CLINICAL EVALUATION ONLY. CONFIRMATION TESTING WAS NOT PERFORMED.		





PCP



Ketamine

QUANTITATIVE

- Confirmatory
- Lab based
- Gas or Liquid Chromatography
- Mass Spectrometry
- Days to result

	Ref Range & Units	2mo ago
 Fentanyl, Urine	<0.50 ng/mL	1.40 ▲
 Norfentanyl, Urine	<0.50 ng/mL	5.40 ▲

Comment: (NOTE)

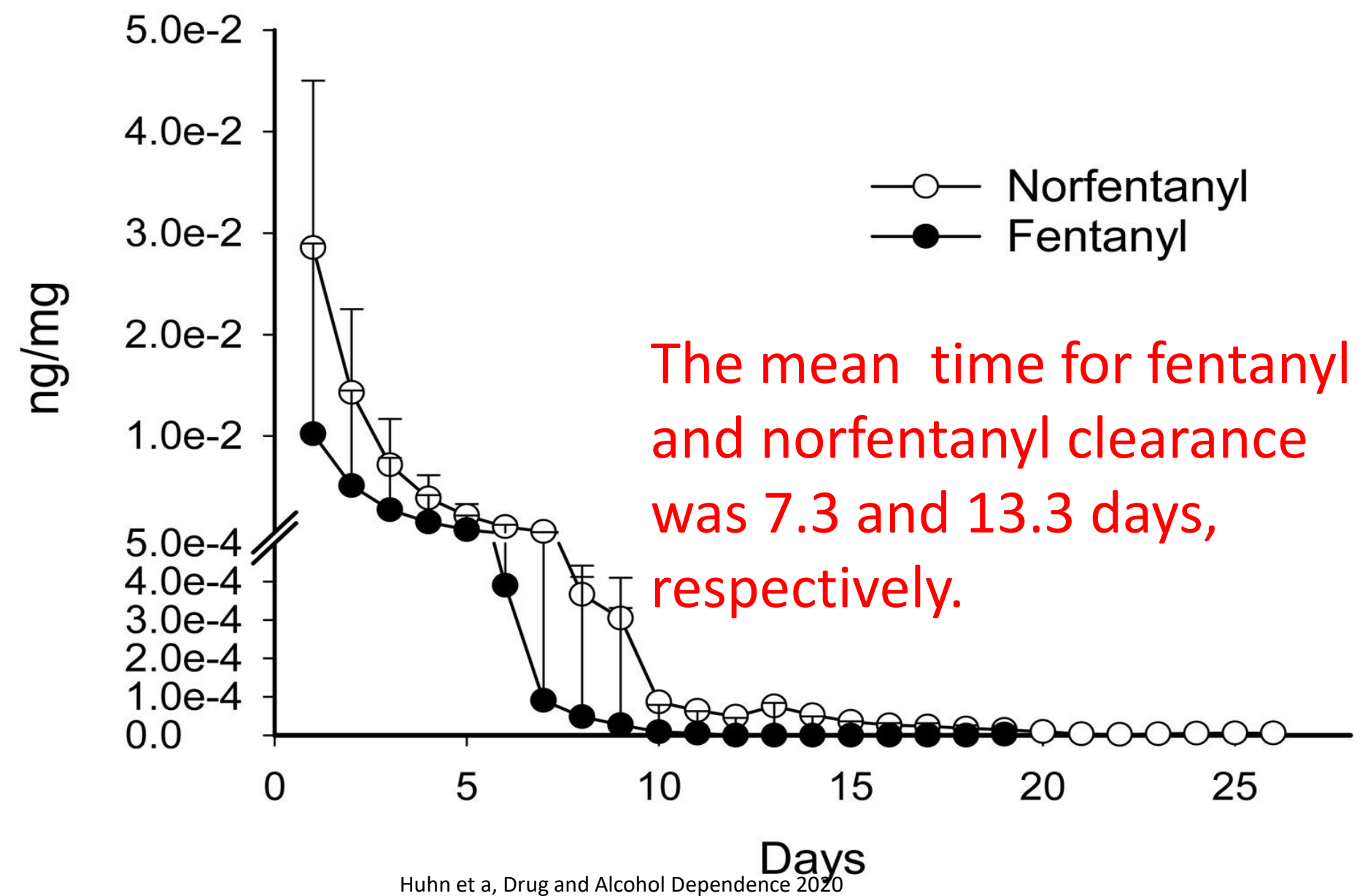
A green lightning bolt icon is positioned on the left side of the white box, pointing towards the text.

FACTORS THAT IMPACT URINE DRUG TEST RESULTS

WINDOW OF DETECTION

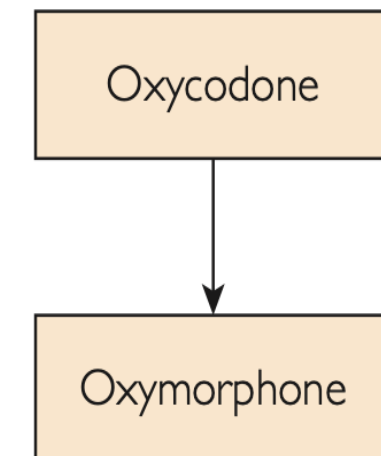
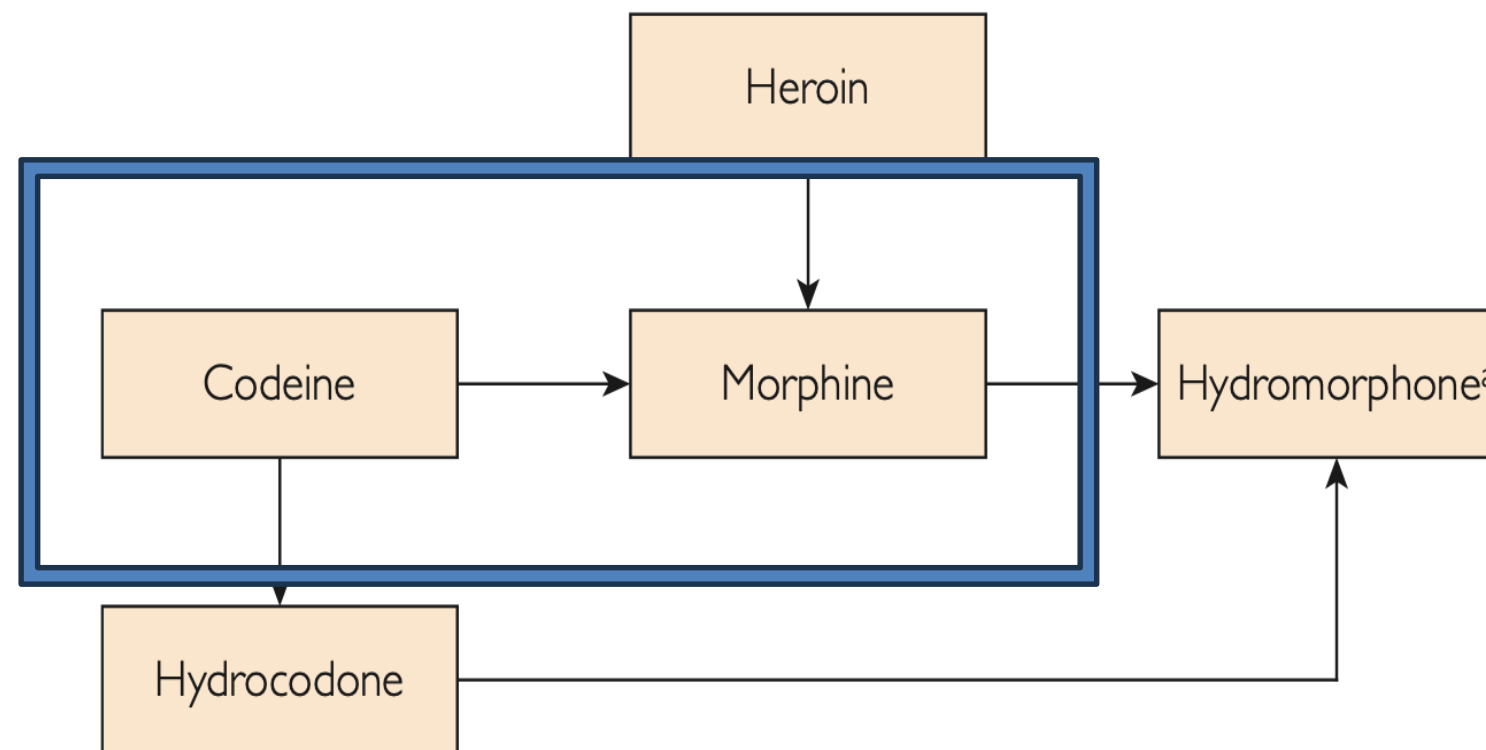
- Amount consumed
- Cut off concentration
- Frequency of Use
- Rate of metabolism
- Amount of adipose
- Time of Last Use

Fentanyl and Norfentanyl Elimination



OPIATES VS OPIOIDS

- Opiates- derived from opium
- Opioids- derived from opium or lab based



From opium	Codeine, morphine, opium
Semisynthetic	Buprenorphine, hydromorphone, hydrocodone, oxycodone, oxymorphone, heroin
Synthetic	methadone, tramadol, fentanyl, meperidine

FALSE NEGATIVES

Urine test fails to identify a drug despite its presence in the urine.

FALSE POSITIVES

Urine drug screen incorrectly identifies a drug that is NOT actually present in urine sample

ADULTERANTS

An additive to the urine for the purposes of masking the of drugs or substances



TAKEWAYS

Urine Toxicology Interpretation is
challenging!

Know what is included in your
testing panel.

Discuss urine drug testing openly
with patient.

Discuss unexpected findings with
open-ended questions.