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**Overview****Useful For**

Detection and quantification of oxymorphone and noroxymorphone in urine

**Method Name**

Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

**NY State Available**

Yes

**Specimen****Specimen Type**

Urine

**Specimen Required**

**Collection Container/Tube:** Plastic urine container

**Submission Container/Tube:** Plastic, 60-mL urine bottle

**Specimen Volume:** 20 mL

**Collection Instructions:**

1. Collect a random urine specimen.
2. Submit 20 mL in 1 plastic bottle.
3. No preservative.

**Additional Information:**

1. No specimen substitutions.
2. No STATS are accepted for this procedure.
3. For situations where chain of custody is required, a Chain-of-Custody Kit (T282) is available. For chain-of-custody testing, order OXYCX / Oxycodone with Metabolite Confirmation, Chain of Custody, Urine
4. Additional drug panels and specific requests are available. Call 800-533-1710 or 507-266-5700.
5. If urine creatinine is required or adulteration of the sample is suspected, the following test should be requested, ADULT / Adulterants Survey, Urine. For additional information, please refer to ADULT / Adulterants Survey, Urine.

**Forms**

If not ordering electronically, complete, print, and send a [Therapeutics Test Request](#) (T831) with the specimen.

**Specimen Minimum Volume**

2.5 mL

**Reject Due To**

Gross hemolysis	OK
Gross icterus	OK

**Specimen Stability Information**

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	28 days	
	Frozen	28 days	
	Ambient	14 days	

**Clinical and Interpretive****Clinical Information**

Oxymorphone is metabolized in the liver to noroxymorphone and excreted via the kidney primarily as the glucuronide conjugates. Oxymorphone is also a metabolite of oxycodone and, therefore, the presence of oxymorphone could also indicate exposure to oxycodone.

The detection interval for opiates is generally 2 to 3 days after last ingestion.

**Reference Values**

Negative

Cutoff concentrations:

Oxymorphone-by LC-MS/MS: 25 ng/mL

Noroxymorphone-by LC-MS/MS: 25 ng/mL

**Interpretation**

This procedure reports the total urine concentration; this is the sum of the unconjugated and conjugated forms of the parent drug.

**Cautions**

Other drugs in the opioid class, such as fentanyl, meperidine, methadone, and opiate antagonists such as naloxone, are not detected.

**Clinical Reference**

1. Gutstein HB, Akil H: Opioid Analgesics. In The Pharmacological Basis of Therapeutics. 11th edition. Edited by LL Brunton, JS Lazo, KL Parker. Goodman and Gilman's: McGraw-Hill Companies, Inc. 2006:<http://www.accessmedicine.com/content.aspx?aID=940653>

2. Baselt, RC: Disposition of Toxic Drugs and Chemical in Man. Ninth edition. RC Baselt. Foster City, CA: Biomedical Publications, 2011

3. [Hackett LP, Dusci LJ, Ilett KF, Chiswell GM](#): Optimizing the hydrolysis of codeine and morphine glucuronides in urine. Ther Drug Monit 2002;24(5):652-657

## Performance

### Method Description

Confirmation with quantification by liquid chromatography/mass spectrometry (LC-MS/MS).(Unpublished Mayo method)

### PDF Report

No

### Day(s) and Time(s) Test Performed

Monday through Sunday

### Analytic Time

2 days

### Maximum Laboratory Time

5 days

### Specimen Retention Time

14 days

### Performing Laboratory Location

Rochester

## Fees and Codes

### Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

### Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

### CPT Code Information

80365

G0480 (if appropriate)

### LOINC® Information

Test ID	Test Order Name	Order LOINC Value
OXYMU	Oxymorphone Confirmation, U	94305-0

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Result ID	Test Result Name	Result LOINC Value
62622	Oxymorphone-by LC-MS/MS	17395-5
42014	Noroxymorphone-by LC-MS/MS	90894-7
36024	Oxymorphone Interpretation	18325-1