MAYO CLINIC LABORATORIES

Test Definition: PNRCH

Drug Immunoassay Panel, Urine

Overview

Useful For

Detecting drug use involving barbiturates, cocaine, and tetrahydrocannabinol

This test is **not intended for use** in employment-related testing.

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
BARBU	Barbiturates Confirmation, U	Yes	No
COKEU	Cocaine and metabolite Conf, U	Yes	No
THCU	Carboxy-THC Confirmation, U	Yes	No

Testing Algorithm

Testing begins with screening tests for drugs of abuse including barbiturates, cocaine, and tetrahydrocannabinol. Positives are confirmed and quantitated by definitive methods (gas chromatography-mass spectrometry for barbiturates, cocaine and metabolites, and tetrahydrocannabinol metabolite) at an additional charge.

Method Name

Only orderable as part of profile. For more information see CSMPU / Controlled Substance Monitoring Panel, Random, Urine.

Immunoassay

NY State Available

Yes

Specimen

Specimen Type

Urine

Ordering Guidance

The test does not screen for drug classes other than those listed above.

Specimen Required

Only orderable as part of profile. For more information see CSMPU / Controlled Substance Monitoring Panel, Random,

Urine.

Container/Tube: Plastic, 60-mL urine bottle
Specimen Volume: 30 mL
Collection Instructions:
1. Collect a random urine specimen.
2. No preservative

Specimen Minimum Volume
20 mL

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	14 days	
	Frozen	14 days	
	Ambient	72 hours	

Clinical & Interpretive

Clinical Information
This test uses the simple screening technique that involves immunologic testing for drugs by class. All positive immunoassay screening results are confirmed by gas chromatography-mass spectrometry (GC-MS) and quantitated before a positive result is reported.

This assay was designed to test for and confirm by GC-MS the following:
-Barbiturates
-Cocaine
-Tetrahydrocannabinol

This test is intended to be used in a setting where the test results can be used to make a definitive diagnosis.

Reference Values
Only orderable as part of profile. For more information see CSMPU / Controlled Substance Monitoring Panel, Random, Urine.

Negative
Screening cutoff concentrations:
Barbiturates: 200 ng/mL
Cocaine (benzoylecgonine-cocaine metabolite): 150 ng/mL

Tetrahydrocannabinol carboxylic acid: 50 ng/mL

This report is intended for use in clinical monitoring or management of patients. It is not intended for use in employment-related testing.

Interpretation

A positive result derived by this testing indicates that the patient has used one of the drugs detected by these techniques in the recent past. See individual tests (eg, COKEU / Cocaine and Metabolite Confirmation, Random, Urine) for more information.

For information about drug testing, including estimated detection times, see Drugs of Abuse Testing.

Cautions

No significant cautionary statements

Clinical Reference

1. Physicians' Desk Reference: 60th ed. Medical Economics Company; 2006
2. Bruntman LL, Lazo JS, Parker KL, eds: Goodman and Gilman's: The Pharmacological Basis of Therapeutics. 11th ed. McGraw-Hill; 2006
3. Langman LJ, Bechtel L, Meier BM, Holstege CP: Clinical toxicology In: Rifai N, Horwath AR, Wittwer CT, eds. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. 6th ed. Elsevier; 2018:832-887
4. Jannetto PJ, Bratanow NC, Clark WA, et al: Executive summary: American Association of Clinical Chemistry Laboratory Medicine Practice Guideline-Using clinical laboratory tests to monitor drug therapy in pain management patients. J Appl Lab Med. 2018 Jan 1;2(4):489-526

Performance

Method Description

The barbiturate, cocaine metabolite, and tetrahydrocannabinol metabolite assays are based on the kinetic interaction of microparticles in a solution as measured by changes in light transmission. In the absence of sample drug, soluble drug conjugates bind to antibody-bound microparticles, causing the formation of particle aggregates. As the aggregation reaction proceeds in the absence of sample drug, the absorbance increases. When a urine sample contains the drug in question, this drug competes with the drug derivative conjugate for microparticle-bound antibody. Antibody bound to sample drug is no longer available to promote particle aggregation, and subsequent particle lattice formation is inhibited. The presence of sample drug diminishes the increasing absorbance in proportion to the concentration of drug in the sample. Sample drug content is determined relative to the value obtained for a known cutoff concentration of drug.(Package inserts: Roche Barbiturates. Roche Diagnostics; 11/2017, Cannabinoids. Roche Diagnostics; 11/2017, Cocaine. Roche Diagnostics; 11/2017)

PDF Report

No

Day(s) Performed

Monday through Saturday

Report Available
Same day/1 to 2 days

Specimen Retention Time
14 days

Performing Laboratory Location
Rochester

Fees & 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 account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
80307

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
PNRCH	Drug Immunoassay Panel, U	87428-9

Result ID	Test Result Name	Result LOINC® Value
2574	Barbiturates	70155-7
21652	Cocaine	19359-9
2664	Tetrahydrocannabinol	19415-9