Test Definition: CATU

Catecholamine Fractionation, Free, 24 Hour, Urine

Reporting Title: Catecholamine Fract, Free, U
Performing Location: Mayo Clinic Laboratories - Rochester Superior Drive

Ordering Guidance:

This assay is of greatest value when the specimen is collected during a hypertensive episode.

Do not perform the test on patients withdrawing from legal or illegal drugs known to cause rebound catecholamine release during withdrawal (see Cautions).

This test **is not** a first-line test for pheochromocytoma. The recommended first-line laboratory tests for pheochromocytoma are PMET / Metanephrines, Fractionated, Free, Plasma; and METAF / Metanephrines, Fractionated, 24 Hour, Urine.

Necessary Information:

24-Hour volume (in milliliters) is required.

Specimen Requirements:

Patient Preparation:

1. If medically feasible, discontinue drugs that release or hinder metabolism of epinephrine, norepinephrine, or dopamine for at least 1 week prior to specimen collection (see Cautions for details). If this is not possible for medical reasons, contact the laboratory to discuss whether a shorter drug-withdrawal period may be acceptable.
2. Unless the reason for testing is drug monitoring, the patient should stop any epinephrine, norepinephrine, or dopamine injections or infusions for at least 12 hours prior to specimen collection.

Supplies: Sarstedt Aliquot Tube, 5 mL (T914)
Collection Container: Plastic vial
Specimen Volume: 2 mL
Collection Instructions:

1. Add 25 mL of 50% acetic acid as preservative at start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. This preservative is intended to achieve a pH of between approximately 2 and 4.
2. Collect urine for 24 hours.

Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Forms:

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:
-Oncology Test Request (T729)
-Renal Diagnostics Test Request (T830)

Urine Preservative Collection Options:

Preservative must be added before beginning collection.

Ambient (no additive)	No
Refrigerate (no additive)	No
Frozen (no additive)	No
50% Acetic Acid	Preferred

Boric Acid	OK
Diazolidinyl Urea	No
6M Hydrochloric Acid	OK
6M Nitric Acid	OK
Sodium Carbonate	No
Toluene	No

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

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
CATU	TM48	Collection Duration (h)	Plain Text	Yes
CATU	VL46	Volume (mL)	Plain Text	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
TM48	Collection Duration (h)	Alphanumeric		13362-9
VL46	Volume (mL)	Alphanumeric		3167-4
2106	Norepinephrine	Alphanumeric	mcg/24 h	2668-2
2107	Epinephrine	Alphanumeric	mcg/24 h	2232-7
2108	Dopamine	Alphanumeric	mcg/24 h	2218-6

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82384

Reference Values:

Norepinephrine
<1 year: <11 mcg/24 h
1 year: 1-17 mcg/24 h
2-3 years: 4-29 mcg/24 h
4-6 years: 8-45 mcg/24 h
7-9 years: 13-65 mcg/24 h
> or =10 years: 15-80 mcg/24 h

Epinephrine
<1 year: <2.6 mcg/24 h
1 year: <3.6 mcg/24 h
2-3 years: <6.1 mcg/24 h
4-6 years: 0.2-10.0 mcg/24 h
7-9 years: 0.5-14 mcg/24 h
> or =10 years: 0.5-20 mcg/24 h

Dopamine
<1 year: <86 mcg/24 h
1 year: 10-140 mcg/24 h
2-3 years: 40-260 mcg/24 h
> or =4 years: 65-400 mcg/24 h

*Reference values adapted from: Moyer TP, Jiang NS, Tyce GM, Sheps SG. Analysis for urinary catecholamines by liquid chromatography with amperometric detection: methodology and clinical interpretation of results. Clin Chem. 1979;25(2):256-263

For International System of Units (SI) conversion for Reference Values, see www.mayocliniclabs.com/order-tests/si-unit-conversion.html.