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**Reporting Title:** Metanephrines with 3-MT, 24h, U**Performing Location:** Rochester**Ordering Guidance:**

Tricyclic antidepressants, labetalol, and sotalol medications may elevate levels of metanephrines producing results that cannot be interpreted. If clinically feasible, it is optimal to discontinue these medications at least 1 week before collection. For advice on assessing the risk of removing patients from these medications and alternatives, consider consultation with a specialist in endocrinology or hypertension.

**Necessary Information:**

24-Hour volume (in milliliters) is required.

**Specimen Requirements:**

Supplies: Urine Tubes, 10 mL (T068)

Submission Container/Tube: Plastic urine tube

Specimen Volume: 10 mL

Collection Instructions:

1. Complete 24-hour urine collections are preferred, especially for patients with episodic hypertension; ideally the collection should begin at the onset of a "spell."
2. Collect urine for 24 hours.
3. Add 10 g (pediatric: 3 g) of boric acid or 25 mL (pediatric: 15 mL) of 50% acetic acid as preservative at start of collection.

**Specimen Minimum Volume:**

4 mL

**Urine Preservative Collection Options:**

Note: The addition of preservative or application of temperature controls must occur at the start of the collection.

Ambient OK

Refrigerate OK

Frozen OK

50% Acetic Acid Preferred

Boric Acid Preferred

Diazolidinyl Urea No

6M Hydrochloric Acid OK

6M Nitric Acid OK

Sodium Carbonate OK

Thymol No

Toluene OK

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

**Ask at Order Entry (AOE) Questions:**

Test ID	Question ID	Description	Type	Reportable
METAF	TM50	Collection Duration	Plain Text	Yes
METAF	VL48	Urine Volume	Plain Text	Yes

**Result Codes:**

Result ID	Reporting Name	Type	Unit	LOINC®
609422	3-Methoxytyramine, U <b>Also used by tests: 3MT1</b>	Alphanumeric	mcg/24 h	32618-1
8552	Metanephrine, U <b>Also used by tests: METAF</b>	Alphanumeric	mcg/24 h	19049-6
21545	Normetanephrine, U <b>Also used by tests: METAF</b>	Alphanumeric	mcg/24 h	2671-6
83006	Total Metanephrines, U <b>Also used by tests: METAF</b>	Alphanumeric	mcg/24 h	2609-6
TM50	Collection Duration <b>Also used by tests: METAF</b>	Alphanumeric		13362-9
VL48	Urine Volume <b>Also used by tests: METAF</b>	Alphanumeric		3167-4
2434	Comment <b>Also used by tests: METAF</b>	Alphanumeric		48767-8

LOINC and CPT codes are provided by the performing laboratory.

**Supplemental Report:**

No

**Components:**

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
3MT1	3-Methoxytyramine, U			Yes	Yes (Order 3MT)
METAF	Metanephrines, Fractionated, 24h, U			Yes	Yes

**CPT Code Information:**

82542  
83835

**Reference Values:****3-Methoxytyramine:**

Males: < or =306 mcg/24 hours  
Females: < or =242 mcg/24 hours

**METANEPHRINE****Males****Normotensives**

3-8 years: 29-92 mcg/24 hours  
9-12 years: 59-188 mcg/24 hours  
13-17 years: 69-221 mcg/24 hours  
> or =18 years: 44-261 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <400 mcg/24 hours

**Females****Normotensives**

3-8 years: 18-144 mcg/24 hours  
9-12 years: 43-122 mcg/24 hours  
13-17 years: 33-185 mcg/24 hours  
> or =18 years: 30-180 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <400 mcg/24 hours

**NORMETANEPHRINE****Males****Normotensives**

3-8 years: 34-169 mcg/24 hours  
9-12 years: 84-422 mcg/24 hours  
13-17 years: 91-456 mcg/24 hours  
18-29 years: 103-390 mcg/24 hours  
30-39 years: 111-419 mcg/24 hours

40-49 years: 119-451 mcg/24 hours  
50-59 years: 128-484 mcg/24 hours  
60-69 years: 138-521 mcg/24 hours  
> or =70 years: 148-560 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <900 mcg/24 hours

#### Females

##### Normotensives

3-8 years: 29-145 mcg/24 hours  
9-12 years: 55-277 mcg/24 hours  
13-17 years: 57-286 mcg/24 hours  
18-29 years: 103-390 mcg/24 hours  
30-39 years: 111-419 mcg/24 hours  
40-49 years: 119-451 mcg/24 hours  
50-59 years: 128-484 mcg/24 hours  
60-69 years: 138-521 mcg/24 hours  
> or =70 years: 148-560 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <900 mcg/24 hours

#### TOTAL METANEPHRINE

##### Males

##### Normotensives

3-8 years: 47-223 mcg/24 hours  
9-12 years: 201-528 mcg/24 hours  
13-17 years: 120-603 mcg/24 hours  
18-29 years: 190-583 mcg/24 hours  
30-39 years: 200-614 mcg/24 hours  
40-49 years: 211-646 mcg/24 hours  
50-59 years: 222-680 mcg/24 hours  
60-69 years: 233-716 mcg/24 hours  
> or =70 years: 246-753 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <1300 mcg/24 hours

#### Females

##### Normotensives

3-8 years: 57-210 mcg/24 hours  
9-12 years: 107-394 mcg/24 hours  
13-17 years: 113-414 mcg/24 hours  
18-29 years: 142-510 mcg/24 hours  
30-39 years: 149-535 mcg/24 hours  
40-49 years: 156-561 mcg/24 hours  
50-59 years: 164-588 mcg/24 hours  
60-69 years: 171-616 mcg/24 hours  
> or =70 years: 180-646 mcg/24 hours

Reference values have not been established for patients that are <36 months of age.

Hypertensives: <1300 mcg/24 hours

For SI unit Reference Values, see <https://www.mayocliniclabs.com/order-tests/si-unit-conversion.html>