

**Reporting Title:** Vanillylmandelic Acid, 24 Hr, U  
**Performing Location:** Mayo Clinic Laboratories - Rochester Main Campus

**Ordering Guidance:**

In the past, this test has been used to screen for pheochromocytoma. However, vanillylmandelic acid (VMA) is not the analyte of choice to rule out a diagnosis of pheochromocytoma. Recommended tests for that purpose include:

- PMET / Metanephrines, Fractionated, Free, Plasma
- METAF / Metanephrines, Fractionated, 24 Hour, Urine
- CATU / Catecholamine Fractionation, Free, 24 Hour, Urine

**Necessary Information:**

- 1. Patient’s age is required.
- 2. Collection duration (in hours) and urine volume (in milliliters) are required.
- 3. All patients receiving L-dopa should be identified to the laboratory when this test is ordered.
- 4. Bactrim may interfere with detection of the analyte. All patients taking Bactrim should be identified to the laboratory when this test is ordered.

**Specimen Requirements:**

**Patient Preparation:** Administration of L-dopa may falsely increase vanillylmandelic acid results. For 24 hours prior to specimen collection, the patient should **not** take L-dopa.

**Supplies:** Urine Tubes, 10 mL (T068)

**Collection Container/Tube:** Clean, plastic urine collection container

**Submission Container/Tube:** Plastic, 10-mL urine tube

**Specimen Volume:** 5 mL

**Collection Instructions:**

- 1. Add 25 mL of 50% acetic acid as preservative at the start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. If specimen is refrigerated during collection, preservative may be added up to 12 hours after collection. This preservative is intended to achieve a pH of between approximately 1 and 5.
- 2. Collect a 24-hour urine specimen.
- 3. If necessary, adjust urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH.

**Additional Information:** For multiple collections see [Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens](#).

**Forms:**

If not ordering electronically, complete, print, and send an [Oncology Test Request](#) (T729) with the specimen.

**Urine Preservative Collection Options:**

**Note:** For addition of preservative or application of temperature information, see Specimen Required.

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
*If boric acid is used, note on specimen container. Also, verify that pH is in desired range (pH=1-5). If pH is outside of desired range, adjust pH with a stronger acid (acetic acid is preferred but other acids listed above could be used if available) in a dropwise fashion to bring pH into desired range.	

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	28 days	
	Frozen	180 days	

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
VMA	TM41	Collection Duration	Plain Text	Yes
VMA	VL39	Urine Volume	Plain Text	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
3580	Vanillylmandelic Acid, Adult (>14y)	Alphanumeric	mg/24 h	3122-9
3581	Vanillylmandelic Acid, Child (<15y)	Alphanumeric	mg/g Cr	30571-4
TM41	Collection Duration	Alphanumeric		13362-9
VL39	Urine Volume	Alphanumeric		3167-4

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

Supplemental Report:

No

CPT Code Information:

84585

Reference Values:

- <1 year: <25.0 mg/g creatinine
- 1 year: <22.5 mg/g creatinine
- 2-4 years: <16.0 mg/g creatinine
- 5-9 years: <12.0 mg/g creatinine
- 10-14 years: <8.0 mg/g creatinine
- > or =15 years (adults): <8.0 mg/24 hours

