MAYO CLINIC LABORATORIES

NEW TEST

Notification Date: March 24, 2020
Effective Date: April 30, 2020

N-Methylhistamine, 24 Hour, Urine

Test ID: NMH24

Useful for:
Screening for and monitoring of mastocytosis and disorders of systemic mast-cell activation, such as anaphylaxis and other forms of severe systemic allergic reactions using 24-hour urine collection specimens

Monitoring therapeutic progress in conditions that are associated with secondary, localized, low-grade persistent, mast-cell proliferation and activation such as interstitial cystitis

Profile Information:

Test ID	Reporting Name	Available Separately	Always Performed
NMH1D	N-Methylhistamine, 24 Hr, U	No	Yes
CRT24	Creatinine, 24 Hour, U	No	Yes

Methods:
NMH1D: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
CRT24: Enzymatic Colorimetric Assay

Reference Values:
0-5 years: 120-510 mcg/g creatinine
6-16 years: 70-330 mcg/g creatinine
>16 years: 30-200 mcg/g creatinine

Specimen Requirements:

Patient Preparation: Patient must not be taking monoamine oxidase inhibitors (MAOIs) or aminoguanidine as these medications increase *N*-methylhistamine (NMH) levels

Supplies: Aliquot Tube, 5 mL (T465)

Container/Tube: Plastic vial, 5 mL

Specimen Volume: 5 mL

Collection Instructions:
1. Collect urine for 24 hours.
2. No preservative.

Minimum Volume: 3 mL

Note:
Random urine collections are preferred for patients with episodic symptoms, for example in the context of allergic reactions, brought on by specific environmental factors. See NMHR / N-Methylhistamine, Random, Urine.

Specimen Stability Information:

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

Cautions:
While an average North American diet has no effect on urinary *N*-methylhistamine (NMH) levels, mild elevations (around 30%) may be observed on very histamine-rich diets. This problem is more pronounced if random-urine specimens are used and collected following a histamine-rich meal.

NMH levels may be depressed in individuals who have an alteration in the histamine-N-methyl transferase gene, which encodes the enzyme that catalyzes NMH formation. This alteration results in an amino acid change that decreases the rate of NMH synthesis.

When N-acetylcysteine is administered at levels sufficient to act as an antidote for the treatment of acetaminophen overdose, it may lead to falsely decreased creatinine results.

CPT Code:
82542

Day(s) Setup: Tuesday, Thursday; 10 a.m. **Analytic Time:** 3 days

Questions:
Contact Kim Terrio, Laboratory Technologist Resource Coordinator at 800-533-1710.