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**Lab Dept:** Urine/Stool

**Test Name:** MUCOPOLYSACCHARIDE SCREEN, (MPS), URINE

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***General Information***

**Lab Order Codes:** MSUS

**Synonyms:** Acid Mucopolysaccharides; AMPS; Berry Spot; Chondroitin Sulfate; Dermatan Sulfate; GAGS; Glycoaminoglycans; Heparan Sulfate; Hurler's Syndrome; Hunter Syndrome; Keratan Sulfate; Mucopolysaccharides;

**CPT Codes:** 83864 – Mucopolysaccharides, acid, quantitative  
82542 – Mucopolysaccharide screen (column chromatography, includes mass spectrometry, if performed, non-drug analyte(s) not elsewhere specified, qualitative or quantitative, each specimen

**Test Includes:** Urine mucopolysaccharides qualitative with interpretive report and quantitative reported in mg/mmol/creatinine.

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***Logistics***

**Test Indications:** Monitoring patients with MPS who have had bone marrow transplants or are receiving enzyme therapy or screening for mucopolysaccharidosis (MPS).

**Lab Testing Sections:** Urine/Stool – Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: MPSSC)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 10 - 18 days

**Special Instructions:** Early morning specimen preferred

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***Specimen***

**Specimen Type:** Urine, random

**Container:** Plastic leakproof container (No preservatives)

**Draw Volume:** 10 mL (Minimum: 3 mL) random urine

**Processed Volume:** Same as Draw Volume

**Collection:** A random urine sample may be obtained by voiding into a urine cup and is often performed at the laboratory. Bring the refrigerated container to the lab. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.

**Special Processing:** Lab Staff: Mix random sample and fill a 10 mL urine tube. Freeze immediately. Ship at frozen temperatures.

**Patient Preparation:** Morning specimen preferred

**Sample Rejection:** Warm specimens; mislabeled and unlabeled specimens

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***Interpretive***

<b>Reference Range:</b>	<b>Mucopolysaccharides, Qualitative:</b> Interpretive report	
	<b>Mucopolysaccharides, Quantitative:</b>	
	Age:	Range (mg/mmol creatinine):
	0 – 4 months:	≤53.0
	5 - 18 months:	≤31.0
	19 months – 2 years:	≤24.0
	3 – 5 years:	≤16.0
	6 – 10 years:	≤12.0
	11 – 14 years:	≤10.0
	>14 years:	≤6.5

**Critical Values:** N/A

**Limitations:** Using this assay, a normal value for total GAG can occasionally be obtained on a specimen that yields a diagnostic TLC pattern (i.e., false-negative results). Occasionally, an abnormal value for total GAG will be obtained on a specimen that yields a normal TLC pattern.

**Methodology:** Mucopolysaccharides, Quantitative: Spectrophotometry (SP)  
Mucopolysaccharides, Qualitative: Thin Layer Chromatography (TLC)

**References:** [Mayo Medical Laboratories Web Page](#) November 2017

**Updates:**

1/28/2016:CPT update