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**Lab Dept:** Urine/Stool

**Test Name:** ARYLSULFATASE A, TIMED URINE

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***General Information***

**Lab Order Codes:** UAS

**Synonyms:** Arylsulfatase A, Quantitative Urine

**CPT Codes:** 84311 – Spectrophotometry, analyte not elsewhere specified

**Test Includes:** Urine Arylsulfatase A concentration in U/L. Results from this assay may not reflect carrier status because of individual variation of arylsulfatase A enzyme levels.

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***Logistics***

**Test Indications:** Useful for detection of metachromatic leukodystrophy and as a secondary specimen for metachromatic leukodystrophy. The preferred initial specimen is leukocytes.

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

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

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 9 - 16 days, specimens processed on Wednesday, assay performed on Thursday

**Special Instructions:** Submit an entire 24-hour urine collection. No preservative. Refrigerate specimen during and after collection.

**Note:** Starting and ending times of collection are required for a timed urine collection and must be documented electronically or on the proper request form.

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***Specimen***

**Specimen Type:** Urine, timed collection

**Container:** Plastic leakproof container (No preservative). Urine GUARD® collection container is preferred for a timed urine sample.

<b>Draw Volume:</b>	Submit an entire 24-hour urine collection
<b>Processed Volume:</b>	10 mL (Minimum: 2.5 mL) urine from a well-mixed 24 hour urine collection
<b>Collection:</b>	For timed urine collections, empty the bladder, discard the voided sample, and note the start time. Collect all urine voided for the specified time period. At the end of the period, note the finishing time, add the last voided sample to the container by emptying the bladder. 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.
<b>Special Processing:</b>	Lab Staff: Measure total urine volume. Mix collection well before aliquot is taken. Aliquot 10 mL urine to a clean, plastic container. Record total volume and duration. Keep specimen refrigerated. Send refrigerated. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:** >1 U/L

**Interpretation:** Greatly reduced levels of arylsulfatase A in urine (<1 U/L), as well as in serum and various tissues, is seen in patients with metachromatic leukodystrophy.

**Note:** Results from this assay may not reflect carrier status because of individual variation of arylsulfatase A enzyme levels.

**Limitations:** Leukocytes are the preferred screening specimen for metachromatic leukodystrophy (MLD). Due to the use of artificial substrate, this test does not reliably pick up carriers.

**Methodology:** Colorimetric, Kinetic

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