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**Lab Dept:** Urine/Stool

**Test Name:** ALDOSTERONE, TIMED URINE

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***General Information***

**Lab Order Codes:** UALD

**Synonyms:** N/A

**CPT Codes:** 82088 – Aldosterone

**Test Includes:** 24 hour urine aldosterone reported in mcg/24 hours.

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***Logistics***

**Test Indications:** Investigation of primary aldosteronism (eg, adrenal adenoma/carcinoma and adrenal cortical hyperplasia) and secondary aldosteronism (renovascular disease, salt depletion, potassium loading, cardiac failure with ascites, pregnancy, Bartter's syndrome).

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

**Referred to:** Mayo Medical Laboratories (MML Test#: ALDU)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 - 8 days

**Special Instructions:** Submit an entire 24-hour urine collection. Requires a preservative in the collection container. Contact the Laboratory ([See Container](#)). 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. Urine GUARD® collection container is preferred for a timed urine sample with preservative.

**Preservative:**

<5 yrs: 15 mL 50% Acetic Acid

>5 yrs: 25 mL 50% Acetic Acid

**Draw Volume:** Submit an entire 24-hour urine collection

**Processed Volume:** 10 mL (Minimum: 6 mL) aliquot of a well mixed 24 hour urine

**Collection:** 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.

**Special Processing:** Lab Staff: Mix urine well. Measure 24 hr volume and take off aliquot and put in a plastic 10 mL urine vial. Indicate the 24-hour volume on label. Remove processed aliquot and refrigerate. Ship refrigerated. Forward promptly.

**Patient Preparation:** The plasma renin activity (PRA) cannot be interpreted if the patient is being treated with spironolactone (Aldactone). Spironol (Aldactone) should be discontinued for 4-6 weeks before testing.

**Sample Rejection:** Mislabeled or unlabeled specimens

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**Interpretive**

**Reference Range:**

Aldosterone, 24 hr, Urine	
Age	Aldosterone mcg/24 h
0 – 30 days:	0.7 – 11.0 mcg/24 hours*
31 days – 11 months	0.7 – 22.0 mcg/24 hours*
> or = 1 year:	2.0 – 22.0 mcg/24 hours*
*Loeuille GA, Racdot A, Vasseur P, Vandewalle B: Blood and urinary aldosterone levels in normal neonates, infants and children. <i>Pediatric</i> 1981; 36:335-344	

**Critical Values:** N/A

**Limitations:**

Angiotensin converting enzyme (ACE) inhibitors have the potential to “falsely elevate” PRA. Therefore, in a patient treated with ACE-inhibitor, the findings of a detectable PRA level or low sodium aldosterone (SA)/PRA ratio do not exclude the diagnosis of primary aldosteronism. In addition, a strong predictor for primary aldosteronism is a PRA level undetectably low in a patient taking an ACE-inhibitor.

**Methodology:**

Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

**References:**

[Mayo Medical Laboratories](#) February 2015

**Updates:**

2/5/2015: Moved from Esoterix to Mayo Medical Laboratories. Note method change. Previously listed as RIA.