Lab Dept:	**Chemistry**
Test Name:	**ALDOSTERONE**

General Information

Lab Order Codes:	ALDS
Synonyms:	Aldosterone, Blood
CPT Codes:	82088 - Aldosterone
Test Includes:	Aldosterone level reported in ng/dL.

Logistics

Test Indications:	Investigation of primary adlosteronism (eg, adrenal adenoma/carcinoma and adrenal cortical hyperplasia) and secondary aldosteronism (renovascular disease, salt depletion, potassium loading, cardiac failure with ascites, pregnancy, Bartter syndrome).
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Mayo Clinic Laboratory (Mayo test: ALDS)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	2 - 5 days, testing performed Monday - Friday
Special Instructions:	See Patient Preparation

Specimen

Specimen Type:	Blood
Container:	Preferred: Red NO GEL Alternate: SST (Gold or marble)
Draw Volume:	3.6 mL (Minimum: 1.8 mL) blood
Processed Volume:	1.2 mL (Minimum: 0.6 mL) serum
Collection:	Routine blood collection

Special Processing: Lab Staff: Centrifuge specimen within 1 hour of collection, remove serum aliquot. Store and ship refrigerated in plastic vial. Forward promptly.

Patient Preparation: 8 AM collection time (after patient is active for 2 hours) is recommended; preferably no later than 10 AM.

Sample Rejection: Mislabeled or unlabeled specimens

Interpretive

Reference Range

Age:	Range (ng/mL)
0 – 30 days:	17 – 154*
31 days – 11 months:	6.5 – 86*
1 – 10 years (supine):	≤40*
1 – 10 years (upright):	≤124*
≥11 years	≤21 (AM peripheral vein specimen)
*Loeuliie GA, Racadot A, Vasseur P, Vandewalle B: Blood and urinary aldosterone levels in normal neonates, infants and children. Pediatrie 1981;36:335-344	

Critical Values: N/A

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

Late PM levels can be up to 30% lower than early AM levels. Supine values are on average 50% lower than upright collections. Sodium deplete subjects have significantly elevated serum aldosterone (SA) levels, potentially exceeding the upper limit of the salt replete upright reference range by several fold. To account for these variables, at least in part, it is recommended that PRA is measured concomitantly. In situations of physiological variability, PRA should be altered in the same direction as aldosterone.

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 a low SA/PRA ratio do not exclude the diagnosis of primary aldosteronism. In addition, a strong predictor for primary aldosteronism is a PRA lvel undetectably low in a patient taking ACE inhibitor.

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

References: Mayo Clinic Laboratories (August 2021)

Updates:
12/14/2010: Reference range update. Suppine references removed. Method change, previously listed as RIA.
11/13/2017: Collection container update.
8/23/2021: Moved from Esoterix to Mayo.