Laboratory Service Manual

Lab Dept: Chemistry

Test Name: ALDOSTERONE

General Information

Lab Order Codes: BALD

Synonyms: Aldosterone, Blood

CPT Codes: 82088 - Aldosterone

Test Includes: N/A

Logistics

Test Indications: The principal use for aldosterone measurements is in the diagnosis of primary hyperaldosteronism, which is most commonly caused by a specific type of adrenal adenoma.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Esoterix Inc. (Test# 500014)

Phone Numbers:

Minneapolis: 612-813-6280

Saint Paul: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 - 6 days, test is performed Monday and Thursday

Special Instructions: A random measurement of aldosterone is of no diagnostic utility unless plasma renin activity is determined simultaneously.

Specimen

Specimen Type: Whole blood

Container: Red top (plain, no gel) tube

Draw Volume: 3.0 mL (Minimum:1.5 mL, does not allow for repeat analysis) blood

Processed Volume: 1.0 mL (Minimum: 0.5 mL) serum

Children's Hospitals and Clinics of Minnesota

Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen within 1 hour of collection, remove serum aliquot. Store and ship frozen in plastic vial. Forward promptly.
Patient Preparation:	No recent radioactive scans or other radioactivity. Diuretics, antihypertensive drugs, cyclic progestogens, estrogens, and licorice should be terminated 2-4 weeks before testing. Patient should be on a normal sodium diet for 2-4 weeks (135 mmol or 3 g sodium/day). Supine sample should be drawn early, before the inpatient arises. If an upright sample is indicated, patient should have been sitting up for 2 hours or more. Replacement of potassium deficit is recommended before samples for aldosterone are taken.
Sample Rejection:	N/A

Interpretive

Reference Range	**Premature Infants:**

26 - 28 weeks, day 4:	5 - 635 ng/dL (supine)
31 - 35 weeks, day 4:	19 - 141 ng/dL (supine)
Full-Term Infants:	
3 days:	7 - 184 ng/dL (supine)
1 week:	5 - 175 ng/dL (supine)
1 - 12 months:	5 - 90 ng/dL (supine)
Children:	
1 - 2 years:	7 - 54 ng/dL (supine)
2 - 10 years:	
supine:	3 - 35 ng/dL
upright:	5 - 80 ng/dL
10 - 15 years:	
supine:	2 - 22 ng/dL
upright:	4 - 48 ng/dL
Adults:	
supine:	3 - 16 ng/dL
upright:	7 - 30 ng/dL
Note: Values are based on early morning specimens from subjects on ad lib sodium intake. Diurnal variations and values in pediatric patients on different sodium diets are currently unavailable.	

Critical Values: Ratio of plasma aldosterone to renin activity >50 is significant.

Limitations: Decreased perfusion of the kidneys leads to increased aldosterone and renin. Aldosterone may be falsely elevated in chronic renal failure when assayed by direct RIA.

Methodology: RIA after selective solvent extraction

Contraindications: Hypokalemia caused by thiazide diuretics can resemble primary aldosteronism.

References:

Esoterix Web Page www.esoterix.com

Esoterix, Inc. "Expected Value & S.I. Unit Conversion Table" Fifth Edition