

NEW TEST

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Aldosterone and Renin Direct, With Ratio

3005949, ALD/DR

Specimen Requirements:

Patient Preparation: Collect midmorning (i.e., 7am-10am) after patient has been sitting, standing, or walking for at least 30 minutes and seated for 5-15 minutes. If the patient is supine, ensure that the patient is in this position for at least 30 minutes prior to collection. Fasting specimens are recommended but not required.

Collect: Serum separator tube (SST) AND lavender (EDTA) from a supine or upright patient. Do not collect in refrigerated tubes nor store tubes on ice. Process blood at room temperature and centrifuge tubes in a nonrefrigerated centrifuge.

Specimen Preparation: Separate from cells ASAP or within 2 hours of collection. Serum: Transfer 1 mL serum to an ARUP standard transport tube (Min: 0.5mL) AND Plasma: Transfer 2 mL EDTA plasma to an ARUP standard transport tube and freeze immediately. (Min: 1 mL)

Transport Temperature: Both specimens should be collected and submitted together for testing. Serum: Frozen. Also acceptable: Refrigerated. Plasma: Frozen

Unacceptable Conditions: Refrigerated plasma or plasma collected in citrate, heparin, or oxalate. Grossly hemolyzed specimens.

Remarks:

Stability: Serum: Ambient: 8 hours; Refrigerated: 5 days; Frozen: 1 month Plasma: Ambient: 8 hours; Refrigerated: Unacceptable; Frozen: 1 month

Methodology: Qualitative Chemiluminescent Immunoassay (CLIA)

Performed: Mon, Wed, Fri

Reported: 1-5 days

Note: Do not use this test for patients treated with cathepsin B. Menstruating females and those taking estrogen containing medications may have lower renin direct concentrations, resulting in falsely high aldosterone-renin ratio (ARR). In these cases, order Aldosterone/Renin Activity Ratio (ARUP test code 0070073). Refer to the Additional Technical Information for Endocrine Society recommendations for patient preparation, specimen collection, medications for hypertension control during confirmatory testing for primary aldosteronism, and factors that may lead to false-positive or false-negative ARR results.

CPT Codes: Refer to Aldosterone (0070015) and Renin, Direct (2001575)

New York DOH Approval Status: This test is New York DOH approved.

Interpretive Data:

Normal serum levels of aldosterone are dependent on the sodium intake and whether the patient is upright or supine. High sodium intake will tend to suppress serum aldosterone, whereas low sodium intake will elevate serum aldosterone. The reference intervals for serum aldosterone are based on normal sodium intake.

Reference Interval:

Test Number	Components	Reference Interval			
	Direct Renin				
		Age	Upright (pg/mL)	Supine (pg/mL)	
		Less than or equal to 40 years	4.2-52.2	3.2-33.2	
		Greater than 40 years	3.6-81.6	2.5-45.1	
	Aldosterone				
		Age	Posture Unspecified (ng/dL)	Supine (ng/dL)	Upright (ng/dL)
		0-6 days	5.0-102.0		
		1-3 weeks	6.0-179.0		
		1-11 months	7.0-99.0		
		1-2 years	7.0-93.0		
		3-10 years	4.0-44.0		
		11-14 years	4.0-31.0		
		15 years and older	31.0 or less	16.0 or less	4.0-31.0
	Aldosterone/Direct Renin Calculation	0.1-3.7			

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.