LITHIUM SERUM

Laboratory: Core Lab

Requisition:

REQUISITION

method

GENERAL LABORATORY

Method of Analysis: Spectrophotometric

Orderable - LI

Turn Around Time: 4 hours



Alternate Name(s):

Li

Specimen:

Adult	Pediatric	
5 mL Gold top	mL Gold top 0-2 years: 0.5 mL Red	
Vacutainer tube	Microtainer	
	2-10 years: 2 mL Red top	
	Vacutainer tube	

Collection Information:

Collect blood aseptically in a Vacutainer tube.

Reference Ranges:

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Test Schedule: As required 0.60-1.20 mmol/L **Toxic:** >1.5 mmol/L - CRITICAL VALUE to be phoned to Nurse or Physician immediately:

Interpretive Comments:

Indicated in management of acute manic episodes in patients with bipolar affective disorders. A 12-hour level of >1.4 mmol/L should be cautiously regarded as serious and repeated measurements should be obtained to affirm or rule out impending lithium intoxication.

Comments:

The light metal, lithium, was discovered in mineral compounds, by August Arfvedson in 1817 and electrolyticly purified by Sir Humphrey Davy (also, independently by Brandé) in 1818. Lithium alters the intraneuronal metabolism of catecholamines by





Pathology and Laboratory Medicine

an unknown mechanism. It is used to suppress the manic phase of manic-depressive psychosis. Toxicity from Lithium salts leads to ataxia, slurred speech and confusion.

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