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**Lab Dept:** Chemistry

**Test Name:** LAMOTRIGINE LEVEL

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***General Information***

**Lab Order Codes:** LAMO

**Synonyms:** Lamictal

**CPT Codes:** 80175 – Lamotrigine

**Test Includes:** Lamictal level reported in ug/mL.

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***Logistics***

**Test Indications:** Monitoring serum concentration of lamictal (lamotrigine), assessing compliance or adjusting lamotrigine dose in patients receiving other anticonvulsant drugs which interact pharmacokinetically with lamictal (lamotrigine).

**Lab Testing Sections:** Chemistry – St. Paul

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 4 hours, test performed daily

**Special Instructions:** If this is a STAT order, please check with the provider to see if the specimen should be shipped immediately and performed STAT by the reference lab at an additional cost. If immediate shipment is necessary, please call the lab to make arrangements.

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***Specimen***

**Specimen Type:** Blood

**Container:** Red top NO GEL tube  
Alternate: Green top NO GEL (Lithium Heparin) tube

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 plasma/serum

<b>Collection:</b>	Routine venipuncture
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens; sample clotted; collected in a gel tube

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### ***Interpretive***

**Reference Range:** 2 – 20 ug/mL

Note: Current clinical information suggests the recommended concentrations for lamotrigine during chronic therapy are 2 - 20 ug/mL.

**Critical Values:** N/A

**Limitations:** Reporting Limit: 0.85 ug/mL

**Methodology:** Immunoassay

**References:**

ARK™, Lamotrigine Assay package insert, ARK Diagnostics, Inc, 1190 Bordeaux Drive, Sunnyvale, CA 94089 USA, Printed in USA, Revised October 2010, 1600-0179-00 Rev 02

ARK™, Lamotrigine Calibrator package insert, ARK Diagnostics, Inc, 1190 Bordeaux Drive, Sunnyvale, CA 94089 USA, Printed in USA, Revised October 2010, 1600-0179-00 Rev 02

ARK™, Lamotrigine Control package insert, ARK Diagnostics, Inc, 1190 Bordeaux Drive, Sunnyvale, CA 94089 USA, Printed in USA, Revised October 2010, 1600-0179-00 Rev 02

Making Sense of Lamotrigine Serum Levels (May 2005) Bassel W Abou-Khalil, MD, American Epilepsy Society, Epilepsy Currents, v.5(3), PMC1198624

Efficacy and Safety of Lamotrigine Monotherapy in Children and Adolescents with Epilepsy (March 2009) European Journal of Paediatric Neurology, Volume 13, Issue 2, pp 141-145

**Updates:** 3/22/2016: Testing moved from MedTox to internal test at Children's  
11/4/2016: Tube update