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**Lab Dept:** Chemistry

**Test Name:** LEVETIRACETAM LEVEL

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***General Information***

**Lab Order Codes:** LEVET

**Synonyms:** Keppra

**CPT Codes:** 80177 – Levetiracetam

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

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***Logistics***

**Test Indications:** This test is used for monitoring levetiracetam therapy. Because levetiracetam has a wide therapeutic index and linear dose-concentration dependence, drug monitoring is not indicated in all patients. Drug concentration monitoring can be useful in documenting failure to respond that may be due to noncompliance, or to guide dosage adjustments in patients with renal failure.

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

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

STP: 651-220-6550

**Test Availability:** Daily, 24 hours

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

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

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

**Draw Volume:** 1.5 mL (Minimum: 0.6 mL) blood

**Processed Volume:** 0.5 mL (Minimum: 0.2 mL) serum/plasma

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic sample cup. Store and ship at refrigerated temperatures.  
Mpls: Forward specimen promptly to St. Paul.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:** Expected steady state trough concentrations in patients receiving recommended daily dosages: 5 - 45 ug/mL. Toxic range has not been established.

**Critical Values:** N/A

**Limitations:** Reporting limit: 2.0 ug/mL

**Methodology:** Immunoassay

**References:** [MedTox Laboratories](#) December 2010

**Updates:**  
6/14/2004: Test changed from storage and shipment at ambient temperatures to refrigerated temperatures.  
12/7/2010: Information updated for MedTox, Mayo information no longer referenced. All specimens to be sent to MedTox.  
9/28/2012: Levetiracetam testing now performed internally at Children's  
1/7/2015: CPT update  
11/16/2016: CPT update