Lab Dept: Chemistry

Test Name: PHENOBARBITAL LEVEL

General Information

Lab Order Codes: PHB
Synonyms: Luminal, PHB
CPT Codes: 80184 - Phenobarbital
Test Includes: Phenobarbital concentration reported in ug/mL.

Logistics

Test Indications: Useful for therapeutic drug monitoring (TDM). Phenobarbital is used in the treatment of seizures. It is particularly useful for treatment of generalized tonic-clonic, partial, focal motor, temporal lobe and febrile seizures.

Lab Testing Sections: Chemistry
Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550
Test Availability: Daily, 24 hours
Turnaround Time: 2 hours
Special Instructions: Peak concentrations are reached several hours after a single large dose. The half-life ranges from 53 to 140 hours.

Specimen

Specimen Type: Blood
Container: Green top (Li Heparin) tube, preferred
Alternate tube: Red, marble or gold top tube
Draw Volume: 0.6 mL blood
Processed Volume: 0.2 mL serum/plasma
Collection: Routine blood collection. Mix tubes containing anticoagulant by gentle inversion.
**Special Processing:** Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen

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**Interpretive**

**Reference Range:** Therapeutic concentration: 15 - 40 ug/mL

**Critical Values:** >60 ug/mL

**Limitations:** N/A

**Methodology:** Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

**References:**
- Biorad Liquichek® Unassayed Chemistry Control (Human) product inser, Irvine, CA

**Updates:**
- 5/1/2005: Critical value changed, previously listed as >50 ug/mL.
- 2/9/2016: Update alt tube type