Lab Dept: Chemistry

Test Name: DILANTIN LEVEL

General Information

Lab Order Codes: DIL
Synonyms: Total Phenytoin; DPH; PHT; Cerebyx®
CPT Codes: 80185 – Phenytoin, total
Test Includes: Dilantin/Phenytoin concentration in ug/mL

Logistics

Test Indications: Useful for therapeutic drug monitoring (TDM). Dilantin is used in the treatment of primary or secondary generalized tonic-clonic, partial, partial-complex seizures and status epilepticus. Once absorbed, the drug is tightly bound to protein.
Lab Testing Sections: Chemistry – Performed on Mpls Campus
Phone Numbers: MIN Lab: 612-813-6280
               STP Lab: 651-220-6550
Test Availability: Daily, 24 hours
Turnaround Time: 2 hours
Special Instructions: Post load – Peak: 1 hour after end of infusion.
                     Trough level – Should be drawn just before the next dose.

Specimen

Specimen Type: Blood
Container: Green top (Li Heparin) tube preferred
           Alternate tube: Green NO GEL, Red top (plain, no gel), SST (gold or marble), Lavender (EDTA), Green (NaHep)
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 plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen

**Interpretive**

**Reference Range:** Therapeutic concentration: 10 - 20 ug/mL

**Critical Values:** >30 ug/mL

**Limitations:** N/A

**Methodology:** Enzyme Immunoassay

**References:**
- Abbott Alinity c Phenytoin Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised July 2018
- Abbott Alinity c TDM Multiconstituent Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised July 2018
- Bio-Rad Liquichek Immunoassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, USA
- Biorad Liquicheký Unassayed Chemistry Control (Human) product insert, Irvine, CA

**Updates:**
- 5/1/2005: Critical value changed, previously listed as >25 ug/mL.
- 2/8/2016: Update alt tube types
- 11/16/2020: Updated tube types and info for method Alinity c.