
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:	<p>Abbott Alinity c Phenytoin Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised July 2018</p> <p>Abbott Alinity c TDM Multiconstituent Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised July 2018</p> <p>Bio-Rad Liquichek Immunoassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, USA</p> <p>Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition</p> <p>Biorad Liquichek Unassayed Chemistry Control (Human) product insert, Irvine, CA</p>
Updates:	<p>5/1/2005: Critical value changed, previously listed as >25 ug/mL.</p> <p>2/8/2016: Update alt tube types</p> <p>11/16/2020: Updated tube types and info for method Alinity c.</p>