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**Lab Dept:** Chemistry

**Test Name:** DILANTIN LEVEL

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***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

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***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

**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.

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***Specimen***

**Specimen Type:** Blood

**Container:** Green top (Li Heparin, no gel) tube **preferred**  
Alternate tube: Red top (plain, no gel) 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.

<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimen

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### ***Interpretive***

<b>Reference Range:</b>	Therapeutic concentration: 10 - 20 ug/mL
<b>Critical Values:</b>	>30 ug/mL
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Particle enhanced turbidimetric inhibition immunoassay (PETINIA)
<b>References:</b>	PTN Flex® reagent cartridge insert sheet Siemens Healthcare Diagnostics Inc (2008-02-29) 717064.001 – US, Rev F  Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition  Biorad Liquichek® Unassayed Chemistry Control (Human) product insert, Irvine, CA
<b>Updates:</b>	5/1/2005: Critical value changed, previously listed as >25 ug/mL. 2/8/2016: Update alt tube types