
Lab Dept: Chemistry

Test Name: GENTAMICIN LEVEL, SERUM/PLASMA

General Information

Lab Order Codes: GENT

Synonyms: Garamycin®

CPT Codes: 80170 – Gentamicin

Test Includes: Gentamicin concentration in ug/mL

Logistics

Test Indications: Useful in monitoring therapeutic dosage and is affective against gram-negative bacteria.

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: A peak level should be drawn 30-60 minutes after infusion. A trough level should be drawn just before the next dose

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) tube **preferred**
Alternate tube: Red, marble or gold top, Green (NaHep), Lavender (EDTA)

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. Store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range:

Peak Levels	
Therapeutic concentration:	4 – 8 ug/mL
Trough Levels	
Therapeutic concentration:	<2 ug/mL generally indicates elimination of the drug

Critical Values: Toxic concentration peak: >10 ug/mL

Limitations: Aminoglycosides similar in structure may cross-react with this assay.

Methodology: Particle Enhanced Turbidimetric Inhibition Immunoassay (Petinia)

References: Abbott Alinity c Gentamicin Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised September 2019

Abbott Alinity c TDM Multiconstituent Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL, USA. Revised July 2018

Bio-Rad Liquicheck Immunoassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, USA

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition, 2001

Biorad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Updates: 2/8/2016: Update alt tube types
11/16/2020: Updated tube types, and info for Alinity c method