
Lab Dept: Chemistry

Test Name: TOBRAMYCIN LEVEL, SERUM

General Information

Lab Order Codes: TOBR

Synonyms: Nebcin

CPT Codes: 80200 - Tobramycin

Test Includes: Tobramycin concentration reported in ug/mL.

Logistics

Test Indications: Useful for therapeutic drug monitoring (TDM). Tobramycin is an aminoglycoside, which is a polycationic agent that kills aerobic 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: Peak levels should be drawn 30-60 minutes after infusion of the drug. Trough levels should be drawn just before next dose. Indicate whether specimen is a peak or trough level.

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. Indicate peak or trough on specimen label.

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

Interpretive

Reference Range:

Peak	
Therapeutic concentration:	4 - 8 ug/mL
Toxic:	>12 ug/mL
Trough	
Therapeutic concentration:	<4 ug/mL generally indicates elimination of the drug
Toxic	>4 ug/mL

Critical Values: Peak: >12 ug/mL
Trough: >4 ug/mL

Limitations: Patients receiving Kanamycin and other structurally similar aminoglycosides should not rely on this method.

Methodology: Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

References: Abbott Alinity c Tobramycin Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. October 2018

Abbott Alinity c Tobramycin Calibrator Kit Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. March 2018

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Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714

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

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

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

Updates:

2/9/2016: Update alt tube type

11/24/2020: Updated for method Abbott Alinity