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**Lab Dept:** Chemistry

**Test Name:** VANCOMYCIN LEVEL, SERUM

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***General Information***

**Lab Order Codes:** VANC

**Synonyms:** Vancocin®

**CPT Codes:** 80202 - Vancomycin

**Test Includes:** Vancomycin concentration in ug/mL

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***Logistics***

**Test Indications:** Useful for therapeutic drug monitoring (TDM). Vancomycin is a glycopeptide that is a bactericidal agent against gram-positive bacteria and some gram-negative cocci. Vancomycin is important in the treatment of cephalosporin and methicillin-resistant organisms.

**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:** Peak levels should be drawn 20-30 minutes after the end of a 60 minute infusion. Trough levels should be drawn within 30 minutes prior to giving a subsequent dose.

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***Specimen***

**Specimen Type:** Blood

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

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL serum/plasma

<b>Collection:</b>	Routine blood collection. Mix tubes containing anticoagulant by gentle inversion. <a href="#">See Special Instructions</a> regarding peak/trough information.
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Store at refrigerated temperatures.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimen

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***Interpretive***

**Reference Range:**

<b>Peak Values:</b>	
Therapeutic concentration:	20 - 40 ug/mL
<b>Trough Values:</b>	
Therapeutic concentration:	<5 - 10 ug/mL
<b>Toxic concentration:</b>	>80 ug/mL

**Limitations:**

There is great disparity in Vancomycin ranges, especially with peak therapeutic ranges. Factors that might affect peak therapeutic ranges include dosage regimen and timing of sample collection. Vancomycin levels in renal dialysis, burn patients, and IV drug abusers should be closely monitored. The physician must determine the appropriate therapeutic range for each patient.

**Methodology:**

Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

**References:**

Abbott Alinity c Valproic Acid Reagent Kit Instructions for Use, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. October 2018

Abbott Alinity c TDM Multiconstituent Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. July 2018

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

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

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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

**Updates:**

2/9/2016: Update alt tube type

11/25/2020: Updated for method Abbott Alinity, removed method Siemens Vista

2/24/2021: Updated toxic concentration