



CONWAY MEDICAL CENTER

PROCEDURE

When in hard copy form, refer to Policy Manager to validate this as the most current revision.

TITLE:	LAB-SPC-05.05 Therapeutic Drug Assays-PRO		
ISSUED BY:	Administrative Lab Director	REFERENCE #:	LAB-SPC-05.05-PRO
APPROVED BY:	Lab Director	EFFECTIVE DATE:	2000-07-01

SCOPE: All hospital staff involved with the ordering and management of therapeutic drugs.

PRINCIPLE: Nursing and Lab staff should be aware of the critical nature of the sample collection times and should adhere to the schedules indicated below unless otherwise instructed by the patient's physician.

PROCEDURE:

- I. Reporting of Results: When applicable, TDM results should be reported in relation to patient dosing and/or timing information.
- II. Ordering of TDM test:
 - A. Order as Urgent ONLY... NOT STAT, NOT Routine
 - B. Prompt in OE: Automatic specimen prompt with the correct dosage timing.
- III. Specific Test Orders, Timing, and Result Ranges

ASSAY	COLLECTION TIMING	THERAPEUTIC RANGE
Gentamicin	Trough level: 30 prior to next dose Peak level: 30 minutes post 30 min IV infusion 60 minutes post IM injection	< 2 ug/ml 3-10 ug/ml
Vancomycin	Trough level: 30 prior to next dose Peak Level: 60 minutes post 1 hr infusion	10-20 ug/ml 25-40 ug/ml
Phenobarbital	4-10 hrs. after dose	15-40 ug/ml
Theophylline	3-5 hrs. post dose	5-15 ug/ml
Phenytoin (Dilantin)	4-5 hrs post dose	10-20 ug/ml
Carbamazepine	6-8 hrs. after oral dose	4-12 ug/ml
Digoxin	8 hrs. after dose	0.8-2.0 ng/ml



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Tobramycin	Trough: 30 minutes prior to next dose Peak: 30 minutes post 30 min IV infusion	0.5-2.0 ug/ml 3.0-10.0 ug/ml
Lithium	12 hrs after dose	0.6-1.2 mmol/l
Valproic Acid	1-4 hrs after oral dose	50-100 ug/ml

RECORDS: NA

REFERENCES:

Dade Vista Method Inserts, 2011

Tietz Textbook of Clinical Chemistry 6th Edition pages 547-550 and 556.

Pharmacy Department- Lexicomp online.

REFERENCE STANDARDS:

CAP GEN.40000; GEN40016; GEN.40032; GEN.40050; GEN.40100

REVISION/REVIEW HISTORY:

Date	Affected Section(s)	Summary of Changes ('Reviewed' or details of change)
08/18/11 dpg	None	Reviewed/Revised Saved electronically in Lab G drive
11/03/11 lds	Format	Changed to MCN policy manager format. Shortened title
03/20/13dg	Format	No content changes. Newest format.
05/15/13DMW/dg	review	Pharmacy suggested slight changes that were not clinically significant on Digoxin. Dr. Wilson did not want to change. Also stated that PEAK Vanc no longer considered informational by some references. CAP and others do continue to give a range so the lab will continue to offer.
01/07/15 dpg/RG	None	No changes. Reviewed by lab and Pharmacy
01/23/17 dpg	None	No tech changes. Review Pharmacy