Saratoga Hospital Laboratory
211 Church Street, Saratoga Springs, NY 12866

Criteria for Specimen Collection for TDM

Scope:
This document applies to specimen collection for therapeutic drug monitoring that is tested at the Saratoga Hospital Laboratory.

Policy:
Therapeutic drug monitoring (TDM) refers to the testing of drug levels at specific periods of time. TDM testing is utilized for the management of patients who are treated with certain drug therapies to determine their dosage. Because these drugs generally have narrow ranges, TDM testing is crucial to maintaining therapeutic, in addition to avoiding harmful levels. In order for a therapeutic drug to stay within the effective treatment level, specimens are collected when the drug is at its trough (lowest) level and its peak (highest). The key to optimal TDM is the timing as well as consistency of the trough and peak collections.

Procedure:

1. TDM trough levels are collected when the patient's drug level is at its lowest serum level. The timing is typically just prior to the administration of a scheduled dose of a therapeutic drug.
2. Therapeutic drug is administered.
3. TDM peak levels are collected when it is anticipated that the patient's drug level will be at its highest serum level. The timing for optimal peak therapeutic drug collection is dependent on several influencing factors. The following table is a guide.

Type of Administration	Time Collected After Dose Completion
30 Minute Intravenous (IV)	30 Minutes
60 Minute Intravenous (IV)	Immediately
Intramuscular (IM)	60 Minutes
Oral	1 to 2 Hours

Procedural Notes:

- Effective communication between laboratory and unit staff must be maintained in order to determine to optimal peak collection time.

References:
McCall, R. E. (2015). *Phlebotomy Essentials*. Lippincott Williams & Wilkins.

Date of Origin: **04/05/2016** Prepared By: Teri Baldwin

Date Placed in Service: 4-6-16

Approved by:
Teri Baldwin — Manager Laboratory Support Services — 4.5.16 (Date)
Donald Dennison — Chemistry & Microbiology Lab Supervisor — 4/5/16 (Date)
William E. Field II, M.D. — Laboratory Medical Director — 6Apr16 (Date)
Richard Vandell — Laboratory Administrative Director — 4/5/16 (Date)

COPY