

Recommendations for the Use of Therapeutic Drug Monitoring in Virginia

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When to Consider Drug Levels

- ▶ Slow response to treatment at 4–6 weeks
 - Clients with positive smears that do not improve on treatment
 - No improvement in clinical symptoms or chest x-ray, if performed
- ▶ New clinical deterioration
- ▶ Receiving second line medications with narrow therapeutic range
- ▶ HIV-infected and CD4 < 100
- ▶ Relapse within 2 years of prior episode of TB disease

Essential points

- ▶ Adherence essential prior to drug levels – need to be on DOT

- ▶ Known drug susceptibility results

- ▶ Consultation with one of TB consultants required for approval of certain testing
 - New clinical deterioration
 - HIV and low CD4 count
 - Relapse within 2 years of prior TB episode

Essential points

- ▶ Approval initially only for INH and rifampin or individual second line drug unless requested by TB consultant
- ▶ Only one level done per drug initially unless requested by TB consultant
 - For most drugs this is the 2 hours post dose draw

Procedure

- ▶ Contact TB Control for approval prior to draw and shipment. 804-864-7906
- ▶ Receive lab slip with authorization code
- ▶ Prior to testing
 - Arrange for appropriate tubes, shipping materials, specimen processing and DRY ICE!
- ▶ Testing day
 - Medications observed and time noted
 - Specimen collected at time specified for drug tested
 - Specimen processed, packaged and shipped

Procedure

- ▶ Specimen must be shipped by overnight service that accepts dry ice packages
 - 5 lbs. dry ice now required
 - Must be shipped to arrive M - TH only

Adjusting medications

Medication	Expected Range	Client result	Recommended Dose Adjustment
Isoniazid daily	3-6	Less than 2	Increase from 300 mg daily to 450 mg daily
Isoniazid bi-weekly	9-18	Less than 7	Increase bi-weekly dose from 900 mg to 1200 mg
Rifampin	8-24	Less than 6	Increase from 600 mg to 900 mg (both daily and bi-weekly dose)

Adjusting medications

- ▶ Obtain follow-up levels after dose adjustment
 - Repeat authorization required
 - Again only one level per drug unless requested by consultant - typically 2 hour post dose
 - Can be as early as 24 hours post adjustment
- ▶ If drug levels remain abnormal, discussion with one of the TB Clinical consultants is recommended

Written Guidance

- ▶ Written guidance document available
- ▶ Will be posted on Tb Control website under policies
