



Patient Follow-up and Monitoring ARV Therapy

Part B

Module B1 Session 6



Objectives

1. Discuss clinical monitoring including clinical and laboratory parameters to follow.
2. Describe how to monitor tolerability, efficacy, and toxicity of ARV therapy.
3. Discuss recommended protocol for clinical monitoring in Nigeria.



Monitoring ARV therapy

Clinical Information

- Gather a detailed past and present history
 - Other medical problems
 - Other drugs, including herbs
- Conduct a thorough physical examination
- Provide ongoing patient education and adherence counseling

How to monitor

For clinical and efficacy monitoring, it is very important to examine the patient at every visit.

- Suggested schedule for patient visits for monitoring:
 - First follow ups at two weeks and four weeks, or earlier if needed
 - Monthly visits thereafter, or more if needed
- At each visit
 - ask about symptoms, adherence, HIV and non-HIV related problems, quality of life
 - conduct a physical examination and check weight



Follow-up: What to look out for

- Missed visits
- Poor adherence (self-report, pill count, pharmacy refill)
- New examination findings not reported at previous visits
 - requires accurate reporting esp. on initial visit
- Unintended weight loss
- New life events that may affect adherence:
 - illness or death of loved one, unemployment, new living arrangement (moved or someone moved in)

Monitoring ARV therapy

Laboratory data

- Absolute minimum tests per WHO
 - HIV test
 - hemoglobin or hematocrit level
- Basic tests
 - WBC or FBC
 - Total lymphocyte count
 - Liver function tests (LFTs)
 - Renal function tests (RFTs)
 - Blood sugar
- Desirable tests
 - CD4
 - Amylase
 - Bilirubin
- Optional*
 - Viral load
 - Resistance testing

*not available in Nigeria routinely at this time

Laboratory Monitoring Recommended by Nigerian Guidelines

Laboratory tests	Baseline	Week 12	Every 24 Weeks
CD4	✓	✓	✓
Viral Load (if available)	✓	✓	✓
Hemogram	✓	✓	✓
E&U	✓	✓	✓
LFT	✓	✓	✓
FBS	✓	✓	✓
Lipids	✓	✓	✓
Blood glucose	✓	✓	✓
Amylase	✓		✓

Special Cases



- For patient on NVP
 - ALT at 2 weeks and at 1 month
- For abnormal ALT at baseline or if the patient develops symptoms
 - ALT at 2 weeks and at 1 month
- For patient on ZDV
 - Hemoglobin at week 2-4, then every 3 months, or more frequently if clinically indicated
- Perform pregnancy testing at baseline and during follow-up when indicated



Clinical Judgment

- ALWAYS USE CLINICAL JUDGMENT
- For example, regardless of the schedule, don't hesitate to check the amylase in a patient with severe abdominal pain or the blood sugar in a patient with polyuria.

Desired CD4 & viral load changes during ART

- Viral load decline of 1.5-2.0 logs in first month
- Viral load decline to <50 copies/ml in 80-90% of patients at 24 weeks

Some clinicians use the following rates of CD4 increase to assess success of therapy but these are only suggestive and there is much individual variation. In patients with severe immune deficiency, it is likely that the rate of increase will be slower than that indicated

- Median CD4 increase: 100-200 in first year
- Median CD4 increase: 100 in next years



Cost of Laboratory Testing

- At PEPFAR sites under the ACTION and GHAIN projects, laboratory testing required for ARV monitoring is provided at no charge to the patient.

PEPFAR Supported Laboratory Capabilities

- Rapid HIV Ab testing (3 tests)
- (Refer indeterminate specimens)
- FBC and differential (automated)
- Chemistries (automated)
- CD4 (manual, some labs automated)
- Pregnancy testing
- Sputum smear for TB
- Malaria smear
- Chest x-ray at baseline
- Viral load capacity will be developed over time as capacity and resources allow