ART initiation and monitoring in adults

Dr Francesca Conradie

Southern African HIV Clinicians Society

Eligibility criteria

Eligible to start ART

- CD4 count ≤350cells/mm3 irrespective of clinical stage

OR

- Irrespective of CD4 count
  - In patients with TB/HIV drug resistant or sensitive TB
  - Pregnant women who are HIV positive and are breast feeding

OR

- WHO stage 3 or 4 irrespective of CD4 count

Eligibility criteria

Require fast track (i.e. ART initiation within 7 days of being eligible)

- Pregnant women eligible for lifelong ART

OR

- Patients with low CD4 <200

OR

- Patients with Stage 4, CD4 count not yet available

Cryptococcal meningitis or TB meningitis (defer ART for 4-6 weeks)

Eligibility criteria

Patients with CD4 above 350

- Transfer to a wellness programme for regular follow up and repeat CD4 testing 6-monthly.
- Advice on how to avoid HIV transmission to sexual partners and children
- Initiate INH prophylaxis if asymptomatic for TB
- Contraceptive counselling and annual Pap smear

Changes to guidelines from January 2015

- CD4+ below 500

- Lifelong treatment for pregnant women

Regimens

1st Line		
All new patients needing treatment, including pregnant women	TDF + FTC or 3TC +EFV FDC preferred.	NVP: In patients with significant psychiatric comorbidity or .intolerance to EFV and where the neuro-psychiatric toxicity of EFV may impair daily functioning, e.g. shift workers.

Regimens

1st Line		
Contraindication to TDF	AZT+ 3TC +EFV or (NVP)	Renal disease or the use of other nephrotoxic drugs e.g. aminoglycosides
Contraindication to TDF and AZT	d4T + 3TC+ EFV (or NVP)	Renal disease and anaemia or the use of other nephrotoxic drugs. aminoglycosides
Contraindication to TDF, AZT and d4T	ABC + 3TC + EFV (or NVP)	Renal disease, anaemia, peripheral neuropathy, the use of other nephrotoxic drugs
Currently on d4T based regimen	TDF + FTC or 3TC + EFV FDC preferred.	Mandatory if patients experience toxicity and patients who are at high risk of toxicity (high BMI, or pregnant,). Switch to TDF if virally suppressed and the patient has normal creatinine clearance even if well tolerated.

Regimens

2nd line	
Management of virological failure	If plasma HIV RNA >1000 copies, • Check for adherence, compliance, tolerability and drug-drug interaction and assess psychological issues. • repeat VL test 2 month later • If plasma VL confirmed >1000copies change regime to second line therapy

Regimens

2nd line		
Failing on a TDF-based 1st line regimen	AZT+3TC+ LPV/r	Patient with anaemia and renal failure switch to ABC
Failing on a d4T -based 1st line regimen	TDF+3TC (or FTC) and LPV/r	
Dyslipidaemia or diarrhoea associated with LPV/r	Switch LPV/r to ATV/r	

Monitoring

At initial Diagnosis of HIV	Purpose
Confirm HIV result with rapid antibody test	Ensure that national testing algorithm has been followed
Clinical staging if HIV positive and the patient has advanced HIV diseases	To assess eligibility for ART To assess eligibility for fast-tracking
Exclude pregnancy or ask if planning to conceive	To identify women who need ART or ARV for PMTCT (see section 6)
Screen for TB symptoms using the WHO questionnaire,	To identify TB/HIV co-infected
Do the CD4 count on the same day	To identify eligibility for ART or ARVs for prophylaxis if pregnant
Do FBC, creatinine and For patients going on Nevaripine ALT on the same day	To detect anaemia or neutropenia, detect renal insufficiency and exclude liver disease

Laboratory monitoring

On ART	Purpose
CD4 at 1 year on ART	To monitor immune response to ART
VL at day of initiation (baseline), month 6, 1 year on ART and then every 12 months	To establish baseline viral load and for ongoing monitoring To identify treatment failures and problems with adherence

Laboratory Monitoring

On ART	Purpose
Creatinine at month 3 and 6, 1 year then every 12 months if on TDF	To identify TDF toxicity
Fasting cholesterol and triglycerides at month 3 if on LPV/r	To identify LPV/r toxicity
ALT only if on NVP and develops rash or symptoms of hepatitis	To identify NVP toxicity
FBC at month 3 and 6 if on AZT	To identify AZT toxicity

Clinical Monitoring-not eligible for ART

At Routine Follow-Up Visits	Purpose
Repeat CD4 count at after 6 months	To see if they have become eligible for ART
WHO clinical staging at every visit	To see if they have become eligible for ART
Screen for TB symptoms to identify TB suspects	To identify TB/HIV co-infection