

Algorithm for initiation of antiretroviral therapy

Confirm HIV diagnosis before starting ART

- Rapid test + ELISA; or
- Rapid test + VL[†]; or
- ELISA + VL[†]

[†], VL may be undetectable in < 1% of patients on ART ('elite controllers')

Baseline tests

- CD4⁺ count: if < 200 cells/μL, then perform sCrAg and start CTX prophylaxis
- VL
- ALT: if significantly abnormal (> 200 U/L or jaundice), then investigate cause before starting ART
- Creatinine: if CrCl < 50 mL/min (or creatinine < 85 μmol/L in pregnant women), then avoid TDF
- HBsAg
- Syphilis serology
- sCrAg: exclude CM by LP if positive

Symptom screen

- TB
 - Cough, fever, weight loss, night sweats, TB contact
 - Send sputum for Xpert analysis, and perform urine LAM test if CD4⁺ count < 200 cells/μL or if the patient is hospitalised
- CM
 - New onset headache
 - Perform sCrAg +/- LP

Symptom screen negative

- Initiate ART

Symptom screen positive

- Defer ART until results of additional tests are known

ALT, alanine transaminase; ART, antiretroviral therapy; CD4⁺, cluster of differentiation 4; CrCl, creatinine clearance rate; CM, cryptococcal meningitis; CTX, cotrimoxazole; ELISA, enzyme-linked immunosorbent assay; HBsAg, hepatitis B surface antigen; HIV, human immunodeficiency virus; LAM, lipoarabinomannan; LP, lumbar puncture; PI, protease inhibitor; sCrAg, serum cryptococcal antigen; TB, tuberculosis; TDF, tenofovir disoproxil fumarate; VL, viral load.