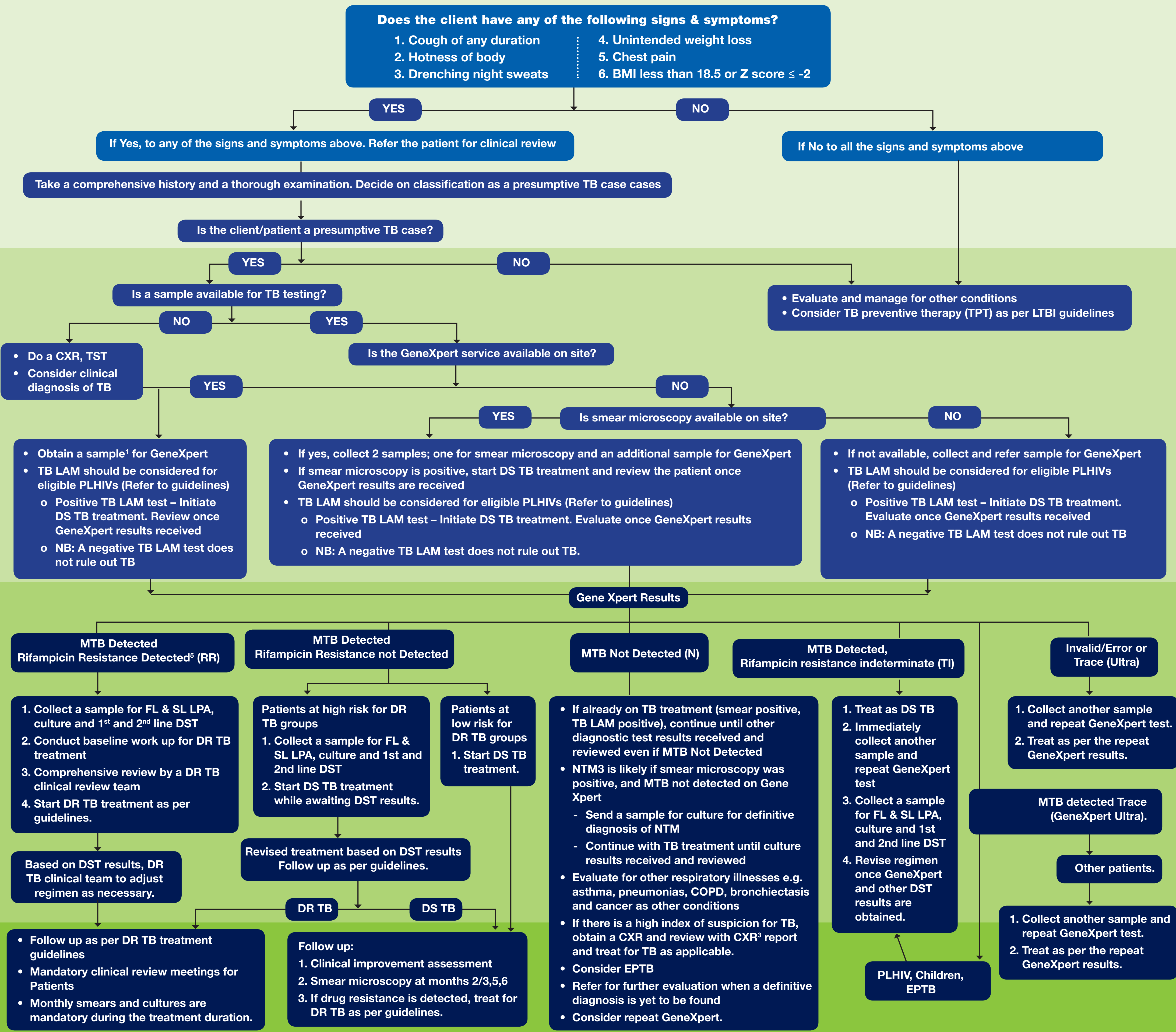


TB SCREENING AND DIAGNOSTIC ALGORITHM FOR CHILDREN ≥10yrs AND ADULTS

GeneXpert is the recommended initial test for TB diagnosis. However, where a facility has no GeneXpert, **smear microscopy** SHOULD BE USED as another sample is collected & referred for GeneXpert.
TB LAM should be used where indicated among PLHIV as per guidelines. TB LAM **SHOULD NOT** be used as an alternative to GeneXpert testing.



Footnotes

- 1 Samples for GeneXpert - sputum, CSF, Pleural aspirate, Peritoneal fluid, synovial fluid, Gastric Aspirate, Nasopharyngeal aspirate, FNA, Lymph node biopsy, Pus, stool
- 2 All CHEST X-rays should be reported and the reports reviewed by the clinician for definitive management
- 3 Indications for use of TB-LAM, as an adjunct test to GeneXpert:
 - PLHIV with advanced disease (WHO stage 3 or 4 or CD4 count ≤200 cells/mm³ (or ≤25% for children ≤5years old) with presumed TB
 - PLHIV that have any danger signs of severe illness: respiratory rate >30 breaths per minute, temperature >39°C, heart rate >120 beats per minute, unable to walk unaided
 - Currently admitted to hospital.

HIV Testing, using the HTS algorithm¹, is recommended during TB screening and diagnosis.

Key	
CXR	Chest X-ray
DR TB	Drug Resistant TB
DS TB	Drug Susceptible TB
DST	Drug Susceptibility Testing
EPTB	Extra pulmonary TB
FL	First line
LPA	Line Probe Assay
MTB	Mycobacteria Tuberculosis
NTM	Non-Tuberculous Mycobacteria
TST	Tuberculin skin test
SL	Second line

DR TB risk classification among patients

High risk for DR TB*	Low risk for DR TB
<ol style="list-style-type: none"> 1. All previously treated TB patients: treatment failures, relapses, treatment after loss to follow up 2. Contacts of Drug Resistant TB patients 3. TB patients with a positive smear result at month 2 or month 5 of TB treatment 4. Patient who develops TB symptoms while on IPT or has had previous IPT exposure 5. Healthcare Workers with TB symptoms 6. Prisoners with TB symptoms 7. Refugees with TB symptoms 	All presumptive TB cases who are NOT in the high risk group
*All the high risk patients MUST be prioritized to received DST - Genexpert, FL and SL LPA, culture and FL and SL DST.	

DS TB follow up and DR TB surveillance

POSITIVE SMEAR RESULT AT	Action
Month 2/3	<ul style="list-style-type: none"> • Evaluate for adherence, and other causes of delayed conversion • Request for all the following drug susceptibility tests (DST): GeneXpert, FL LPA and SL LPA. Culture and FL and SL DST • Continue with RHZE for one more month, or longer if DST results not received by then • Adjust treatment regimen based on DST results • Repeat smear microscopy at end of month 3. If smear positive continue with RHZE and review DST results and inform the SCTLIC immediately • Do not proceed to the continuation phase (RH) without a DST result confirming susceptibility to RH (rifampicin and isoniazid)
Month 5 or month 6	<ul style="list-style-type: none"> • Declare treatment failure and stop anti-TB treatment • Review by the sub county and county TB clinical review teams • Evaluate for adherence, other causes of delayed conversion and treatment failure • Request for GeneXpert, FL LPA and SL LPA. Culture and FL and SL DST • Review DST results and re-initiate treatment based on DST results and other clinical findings
DR TB follow up and DR TB surveillance	
Smear positive or culture positive at month 3 or later	<ul style="list-style-type: none"> • Evaluate for adherence, and other causes of delayed conversion • Request for the following drug susceptibility tests (DST) (GeneXpert, Culture and First Line (FL) and SL DST, FL LPA and SL LPA) depending on the initial resistance pattern <ul style="list-style-type: none"> ○ Review by the sub county and county clinical review teams <ul style="list-style-type: none"> ▪ Evaluate for adherence, other causes of reversion and treatment failure ▪ Review the DST results ○ Declare failure if at the end of the extended intensive phase (refer to DR TB guidelines) ○ Send a case summary to the national clinical team after review by the county clinical team • Do not proceed to the continuation phase (depending on treatment regimen) without a DST result
Smear positive smears and/or cultures during continuation phase	<ul style="list-style-type: none"> • Declare treatment failure <ul style="list-style-type: none"> ○ Review by the sub county and county clinical review teams <ul style="list-style-type: none"> ▪ Evaluate for adherence, other causes of reversion and treatment failure ▪ Review the DST results • Send a case summary to the national clinical team after review by the county clinical team