Algorithm for the Diagnosis of Drug Resistant Tuberculosis

Patient presents with TB symptoms:
Cough plus one of the following:
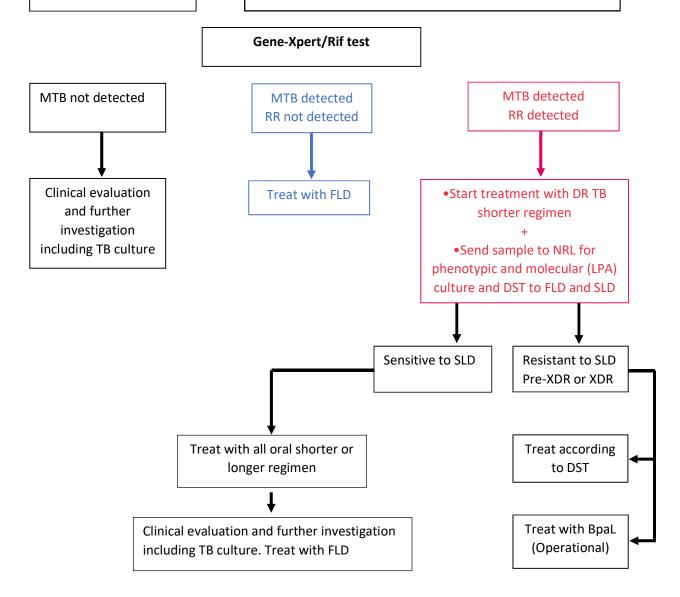Fever, night sweats, loss of appetite, weight loss, fatigue, hemoptysis

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Chest X-Ray abnormal

A. Patient with low risk of MDR TB → Follow standard TB algorithm

B. Patient at high risk of MDR-TB:

- Previously treated patients* (including relapse, retreatment after loss to follow-up or failure…)
- Contact with MDR-TB case
- Patients from High Burden Countries for DR-TB**
- Prisoners
- registered PLHIV
- DM, immunocompromised cases e.g. SLE, Ca

Gene-Xpert/Rif test

MTB not detected → Clinical evaluation and further investigation including TB culture

MTB detected RR not detected → Treat with FLD

MTB detected RR detected →
- Start treatment with DR TB shorter regimen
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- Send sample to NRL for phenotypic and molecular (LPA) culture and DST to FLD and SLD

Sensitive to SLD → Treat with all oral shorter or longer regimen → Clinical evaluation and further investigation including TB culture. Treat with FLD

Resistant to SLD Pre-XDR or XDR → Treat according to DST / Treat with BpaL (Operational)

* a) Relapse: those who were previously treated and declared cured/ treatment completed and are now diagnosed with a recurrent episode of TB; b) Treatment after failure: those whose treatment failed (culture positive at 2 months of treatment or any time after 2 months of treatment; c) Treatment after loss to follow-up: those who have previously been treated and treatment was interrupted for more than 2 months.
** Refer to Annex 7 "WHO High Burden Country Lists for TB"