



Republic of the Philippines  
Department of Health  
**OFFICE OF THE SECRETARY**

July 1, 2015

**DEPARTMENT MEMORANDUM**  
No. 2015 - 0260

**TO: ALL DOH REGIONAL OFFICE DIRECTORS, SECRETARY OF HEALTH OF AUTONOMOUS REGION OF MUSLIM MINDANAO, NATIONAL TUBERCULOSIS REFERENCE LABORATORY (NTRL), DIRECTORS OF HOSPITALS WITH PROGRAMMATIC MANAGEMENT OF DRUG-RESISTANT TUBERCULOSIS (PMDT) TREATMENT FACILITIES AND XPRT SITES**

**SUBJECT: Revised Diagnostic Algorithm Using Xpert MTB/RIF**

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This is to inform all PMDT staff on the revised diagnostic algorithm using Xpert MTB/RIF.

1. All Presumptive Drug-resistant Tuberculosis (DR-TB) such as retreatment cases (relapse, treatment after lost to follow-up, treatment after failure, previous treatment outcome unknown), non-converter of Category 1, Contacts of DR-TB and People Living with HIV (PLHIV) with sign or symptom of TB shall undergo DR-TB screening.
2. **For Screening of Presumptive DR-TB in the Satellite/Treatment Center (S/TC):**
  - a. Presumptive DR-TB except PLHIV is required to have a copy of their latest DSSM result from a quality assured microscopy laboratory within 1 month of the screening date along with the NTP Referral Form and other pertinent documents.
  - b. Presumptive DR-TB with negative DSSM should have his/her latest CXR result showing findings consistent with active TB.
  - c. Upon completion of the screening process, only 1 sputum specimen for Xpert MTB/RIF test will be collected. However, for presumptive DR-TB without DSSM result or not done, can still be tested for Xpert MTB/RIF test but should request for DSSM at the designated TB Microscopy Laboratory.
  - d. Contacts of DR-TB patients eligible for screening will be asked to submit 2 sputum specimens for DSSM at the designated TB Microscopy Laboratory and 1 sputum sample for Xpert MTB/RIF test.
  - e. Both DSSM positive and negative sputum samples are to undergo Xpert MTB/RIF test.

3. **For MTB Not Detected Result:**
  - a. PMDT Physician will review the case and determine if patient needs anti-TB treatment.
  - b. No culture and DST result will be expected for these patients.
4. **For MTB Detected, Rifampicin Resistance NOT Detected Result:**
  - a. Patient will be initiated with first line anti-TB regimen at a DOTS provider facility.
    - i. For New Case, treat with Category I.
    - ii. For Retreatment Case, treat with Category II.
  - b. Include copy of official Xpert MTB/RIF test result in the referral of cases for first line anti-TB treatment unless otherwise advised.
  - c. No DSSM, culture and DST result will be expected for these patients.
  - d. If the PMDT Physician has a high index of suspicion for drug resistance other than Rifampicin, he/she may request thru their respective laboratory for culture and DST. While waiting for the culture and DST result, the patients is to be referred for first line anti-TB regimen at a DOTS provider facility.
5. **For MTB Detected, Rifampicin Resistance DETECTED Result:**
  - a. Patients with high MDR-TB risk whether smear positive or negative will be started on treatment with *Standardized Regimen Drug Resistant(SRDR)* until release of Drug Susceptibility Test Results (MGIT, Line Probe Assay (LPA) or conventional). This will be labeled as Bacteriologically Confirmed Rifampicin-Resistant TB (BC RR-TB).
  - b. High MDR-TB risk includes retreatment cases: Relapse (R), Treatment After Failure (TAF), Treatment After Lost to Follow-up (TALF), Previous Treatment Outcome Unknown (PTOU); non-converter of Category 1, contacts of MDR-TB and PLHIV with sign or symptom of TB.
  - c. Collect 2 sputum samples upon enrollment for baseline DSSM, Culture and Conventional DST, regardless of when the screening was done.
  - d. Upon release of DST, *Individualized Regimen* will be given.
  - e. *A repeat sputum collection for Xpert MTB/RIF test will be done among low MDR-TB risk patients whether smear positive or negative but with initial Rif Res results on Xpert MTB/RIF test. The 2<sup>nd</sup> result will be considered official.*
6. **For Indeterminate/Invalid/Error/No Result:**
  - a. Repeat Xpert MTB/RIF test at the same Xpert site (if feasible) with a fresh sputum specimen.
  - b. The 2<sup>nd</sup> result will be considered official.
7. **Referrals for patients with MTb Detected Rifampicin Resistance Detected from other DOTS Facilities or Xpert Sites:**
  - a. PMDT Physician will review the case.
    - i. If high MDR-TB risk, enroll and start SRDR.
    - ii. If low MDR-TB risk, repeat Xpert MTB/RIF test at the same Xpert site (if feasible) with a fresh sputum specimen.
  - b. The 2<sup>nd</sup> result will be considered official.

**8. Sputum Packaging and Transport:**

- a. All specimens for Expert MTB/RIF test should have the name of the patient and for Xpert examination indicated at the body of the sputum cup/conical tube.
- b. **NTP Laboratory Request Form should be properly and completely filled-out whether paper-based or electronic-based.**
- c. All specimens to be transported should have a laboratory receiving form.
- d. Proper packaging shall follow local and international transport standard as agreed during training.

**9. Release of Results:**

- a. Result of Xpert MTB/RIF test should be released at most within 3 working days.
- b. Result should be officially signed by the staff who performed the test and by the immediate supervisor.
- c. All results returned to requesting facilities shall have a laboratory releasing form.
- d. The PMDT Physician or designated staff shall accomplish the Return Slip found at the lower portion of the NTP Referral Form for all patients referred for DR-TB screening.
- e. The Return Slip together with the NTP Laboratory Request Form will be sent back to the referring Physician or facility.

**10. Recording- Presumptive DR-TB Masterlist**

- a. **All screened patients are to be recorded in the Presumptive DR-TB Masterlist including BC RR-TB cases referred by other DOTS Facility or Xpert site.**
- b. **Column (10) Sputum Test shall follow the following: the first box shall be used for the DSSM results brought by the patient (or from TC/STC DOTS TB Microscopy Laboratory). The second box shall be used for Xpert MTB/RIF test result.**
- c. Use black ink for conventional results and red ink for positive and resistant results.
- d. Write the result in the upper portion of the box and the date test was requested in the lower portion of the box.
- e. Write at least one DSSM result. The highest result will be recorded.
- f. Write RR for MTb detected, Rifampicin-resistance detected;  
T for MTb detected, Rifampicin-resistance not detected;  
TI for MTb detected, Rifampicin-resistance indeterminate;  
N for MTb not detected;  
I for invalid/no result/error;  
ND for not done.
- g. **Repeat collection for Indeterminate/Invalid/Error: divide the Xpert MTB/RIF box into two columns. Write the result in the 2<sup>nd</sup> column.**

Attached herewith is the national TB Xpert MTB/RIF diagnostic algorithm for your reference.

For your information and compliance.

By Authority of the Secretary of Health:



**VICENTE Y. BELIZARIO, JR., MD, MTM&H**  
Undersecretary of Health  
Office for Technical Services

## NTP DIAGNOSTIC ALGORITHM USING Xpert MTB/RIF

