



# ***CLINICAL GUIDE TO XPRT MTB/RIF & XPRT MTB/RIF III TRA***

Worksheet (H1:M8)

## EXERCISE 1: CLINICAL CASE STUDIES (H1:M8)

Answers are in bold.

### Case study 1:

Q1. A 20-year old female is on TB treatment at your facility. At 23 weeks of treatment, she is asymptomatic. What do you do?

1. Collect one sputum specimens. Request smear microscopy.
2. Collect one sputum specimen. Request a Xpert MTB/RIF test and send to the laboratory.
3. Collect two sputum specimens. Request a TB culture on the first and LPA on the second. Submit both samples to the laboratory.
4. **Register the patient as cured.**

Q2. How does the patient being identified as a new case or a retreatment case affect the timing of sputum sample collection during treatment?

**New case: 2 months; 5 / 6 months (if smear positive- culture & DST)**

**Retreatment case: 3 months; 5 months & 8 months (if smear positive- culture & DST)**

### Case study 2:

Q1. A 29-year old male is on TB treatment at your facility. At seven weeks, he is asymptomatic. What do you do?

1. Collect two sputum specimens. Request a TB culture on the first and LPA on the second. Submit both samples to the laboratory.
2. Collect one sputum specimen. Request a Xpert MTB/RIF test and send to the laboratory.
3. **Collect one sputum specimens. Request smear microscopy.**
4. Register the patient as cured.

### Case study 3:

Q1. A 20-year old female, new TB case and on TB treatment. At 23 weeks, she is asymptomatic. A sputum is submitted to the laboratory for smear microscopy. The patient is found to be smear positive. What do you do?

1. Register the patient as a treatment failure. Collect one sample for smear microscopy.
2. **Register the patient as a treatment failure. Collect sample for Xpert MTB/RIF and a second for culture and DST**
3. Register the patient as cured.
4. Refer immediately the patient to a MDR-TB unit

Q2. In this case the GX result comes back as MTB detected Rif sensitive what do you do next?

For patients who meet criteria for treatment failure, the possible reasons must be addressed promptly.

**NB:** A fundamental principle in managing patients who have failed treatment is that a single new drug should never be added to a failing regimen; so doing may lead to acquired resistance to the added drug. In such cases, it is generally prudent to add at least three new drugs to which susceptibility could logically be inferred to lessen the probability of further acquired resistance.

#### Case study 4:

A 21-year old female is on retreatment TB regime. At 12 weeks, she remains symptomatic. A sputum is submitted to the laboratory for smear microscopy. The patient is found to be smear positive. The patient admits not taking her medication for eight weeks. What do you do?

1. This patient has MDR-TB. Refer the patient to a MDR-TB Unit.
2. **Register the patient as a treatment interrupter. Collect one sample for smear microscopy.**
3. Register the patient as a treatment interrupter. Collect sample for Xpert MTB/RIF and a sample for culture and DST
4. Register the patient as cured.

#### Case study 5:

A Xpert MTB/RIF test result is received from the laboratory. The Xpert MTB/RIF test result is negative. What do you do?

1. The test result is invalid, and should be repeated on a second sputum specimen.
2. **This patient is unlikely to have TB. The patient should be reassessed and consider other diagnosis.**
3. This patient has TB, and must be treated with a standard MDR-TB regimen.
4. This patient has TB, and must be treated with a standard TB regimen.

#### References and resources:

- WHO Global Tuberculosis Report 2016
- Companion handbook to the WHO guidelines for the programmatic management of drug-resistant tuberculosis (2014)
- WHO policy on collaborative TB/HIV activities- Guidelines for national programmes and other stakeholders (2012)
- WHO- Definitions and reporting framework for tuberculosis - 2013 revision (updated December 2014)
- WHO International standards for tuberculosis care (2014)