Module 8
Recording and Reporting

Learning Objectives

At the end of this module, the participant will be able to

- Describe the quantification scheme for reporting results
- Interpret AFB smears using WHO/IUATLD guidelines
- Report microscopy results on the Laboratory Request Form
- Record microscopy results correctly in the Laboratory Register

Content Outline

- AFB Record Keeping
- WHO/IUATLD Quantification Scale
- Recording and reporting results:
  - Negative
  - Positive
- Entry of data into the Laboratory Register

Laboratory Record Keeping

- Laboratory Request Form
- Microscopy Report Forms
- Laboratory Register

All laboratory records should be retained for at least two years

Laboratory Request Form
Example

LABORATORY REQUEST FORM FOR MICROSCOPY

Name of Health Centre _____ Date _____

Name of patient _____ Age _____ Sex M ❒ F ❒

Complete address: _____

_____

Patient's register number* _____

Source of specimen ❒ Pulmonary
❒ Extra-pulmonary Site _____

Reason for examination ❒ Diagnosis
❒ Follow-up of chemotherapy

Specimen identification number _____ Date _____
Signature of person requesting examination _____

** Be sure to enter the register number for the follow-up of patients on chemotherapy*

Laboratory Request Form Content

- Name of Health Center
- Date of request
- Patient's information (i.e., name, sex, age, address, and register number)
- Source of specimen
- Reason for examination (e.g., diagnosis or follow-up)
- Specimen identification number
- Signature of person requesting examination

Microscopy Report Example

MICROSCOPY RESULTS

Laboratory serial number: _____

Visual appearance of sputum

	Mucopurulent	Blood-stained	Saliva
Specimen 1	☐	☐	☐
Specimen 2	☐	☐	☐
Specimen 3	☐	☐	☐

Microscopy results

Staining method ☐ Ziehl-Neelsen ☐ Fluorochrome

Date	Specimen	Results*	Positive (grading)			
			3+	2+	1+	1-9 AFB
	1					
	2					
	3					

**Write negative or positive*

Date: _____ Examined by (signature): _____

Microscopy Request and Report Form Example

Tuberculosis Programme — Form 1

Request for sputum examination

The completed form with results should be sent promptly to the referring facility (originator)

Referring facility (originator)* _____ Basic Management Unit _____

Date _____ Referring facility (recipient): _____

Name of patient _____ Age _____ Sex: M ☐ F ☐

Complete patient's address _____

_____

Reason for examination:

Diagnosis ☐

OR Follow-up ☐ Number of month of treatment: _____ BMU TB Register No.** _____

Disease site: Pulmonary ☐ Extrapulmonary ☐ (specify) _____

Number of sputum samples sent with this form _____ Date of collection of first sample _____

Name and signature of specimen collector _____

** Including all public and private health facility/providers*

*** Be sure to enter the patient's BMU TB Register No. for follow-up of patients on chemotherapy*

RESULTS (to be completed by laboratory)

Lab. Serial No. _____

DATE collected	SPECIMEN	Visual appearance ***	RESULTS				
			Neg	Low (+) (1-9)	(+)	(++)	(+++)
	1						
	2						
	3						

**** (B): blood-stained; (M): muco-purulent; (S): saliva*

Date _____ Examined by _____ Signature _____

Microscopy Report
Content

- Evaluation of specimen quality
- Smear result
- Date of exam
- Signature of microscopist/technician

WHO and IUATLD
Positive and Negative Report

- Negative Report: **Negative** for AFB where no organisms observed in 100 oil immersion fields

- Positive Report: **Positive** for acid-fast bacilli; provide AFB quantification

WHO/IUATLD Quantification scale
Ziehl Neelsen

Number of AFB	Number of fields* examined	What to report
No AFB in 100 fields	100 fields	No Acid Fast Bacilli detected
1–9 AFB in 100 fields	100 fields	Record exact figure (1 to 9 AFB per 100 fields)
10– 99 AFB in 100 fields	100 fields	1 +
1– 10 AFB in each field	50 fields	2 +
More than 10 AFB in each field	20 fields	3 +

* Oil immersion fields

Recording Results

- Report exactly what you see in the microscope. This is important in order to know patient's infectious stage, treatment, and follow up.
- Do not write results on the slides as they will be needed for rechecking

Laboratory Register Example

Tuberculosis Programme

Form 2

Basic Management Unit TB Laboratory Register

Lab. Serial No.	Date specimen received	BMU TB Register No. [1]	Name (in full)	Sex M/F	Age	Complete address (for new patients)	Name of referring health facility [2]	Reason for examination		Microscopy results [5]			Signature Remarks
								Diagnosis [3]	Follow-up [4]	1	2	3	

[1] Only for confirmed TB case registered in the BMU TB register.
[2] Facility that referred (send) the patient (or specimen or slides) for sputum smear examination. Use standardized type of referring facilities according to block 2 of the yearly report. Referring facility/provider type is define as health structure or health providers working in health structure in any of the following TB control functions (DOTS): referring TB suspects/cases, laboratory diagnosis, TB treatment support
[3] Tick or indicate if TB suspect is re-examined just after antibiotics.
[4] Indicate month of treatment at which follow-up examination is performed.
[5] (NEG): 0 AFB/100 fileds; exact number if 1 to 9 AFB/100 fields; (+): 10-99 AFB/100 fileds; (++): 1-10 AFB/ fields; (+++): > 10 AFB/ fields

Laboratory Register
Content

- Date specimen received
- Laboratory Reference Number
- Type of specimen
- Patient's information (i.e., name, sex, age, address and register number)
- Reason for examination (e.g., diagnosis or follow-up)
- Microscopy results
  - **Use a red pen for Positive results**
- Name and signature of person performing test

False Negatives and Consequences

False-negative means that the results that were reported negative were truly positive

- Patients with TB may not be treated resulting in on-going disease, disease transmission, or death.
- Intensive phase treatment may not be extended, resulting in inadequate treatment and potential drug resistance

False Positives and Consequences

False-positives mean that the results that were reported positive were truly negative

- Patients are treated unnecessarily
- Treatment may be continued longer than necessary
- Medications will be wasted

Summary

- What are the key elements required for accurate record keeping?
- What essential data must be entered into the Laboratory Register?
- What is the WHO/IUATLD quantification scale for reporting the number of AFB in sputum smears?
- What are the consequences of a false-positive result being reported?
- Why is it important to identify whether a specimen is for diagnosis or follow-up?