



Module 8

Recording and Reporting of Smears

Purpose	To provide you with an understanding of the WHO and IUATLD smear reporting system and your national TB control recording system
Prerequisite Modules	Module 7
Learning Objectives	<p>At the end of this module, the participant will be able to</p> <ul style="list-style-type: none">▪ Describe essential elements of recording and reporting▪ Describe the quantification scheme for reporting results▪ Report microscopy results on the Laboratory Request Form▪ Record microscopy results correctly in the Laboratory Register.
Content Outline	<ul style="list-style-type: none">▪ Essential elements of Record Keeping▪ Laboratory request and report forms▪ Recording and reporting results: Negative and Positive▪ Entry of data into the Laboratory Register
Handout and Exercises	<p>Exercise: Recording and reporting of smears-Power point</p> <p>Exercise: Laboratory Practical session # 6: Reading and reporting of panel slides from Laboratory Practical session # 4</p>
Appendix	<p>Appendix 1: Request form for sputum examination</p> <p>Appendix 2: Panel testing report form</p>

Module 8: Recording and Reporting

ESSENTIAL ELEMENTS OF RECORDKEEPING

Accurate recordkeeping in the TB laboratory is essential. Recording means keeping the register up-to-date. Lives depend upon it, and so does the proper management of the tuberculosis control program. Records should include information about the following events:

- What type of specimens received by the laboratory
- How specimen is identified
- How results are reported
- When specimens are sent to higher-level laboratories for culture and drug susceptibility testing

The National Tuberculosis Program (NTP) should use a standardized recordkeeping system that is simple, practical, and limited to essential information.

Accurate recordkeeping is based around four elements:

- Completeness
- Consistency
- Credibility
- Timeliness

Laboratory supervisors should regularly review Specimen Request Forms, the Laboratory Register, and the reporting of results to ensure that laboratory recordkeeping meets the above elements.

LABORATORY REQUEST AND REPORT FORMS

Patient details

In many countries, the Laboratory Request Form and the Microscopy Report Form are combined into a single sheet of paper. This enables better tracking of report and reduces the time to transcribe the patient and sample related information on separate report form and hence reduces transcription errors.

A Laboratory Request Form must be submitted with the first sputum specimen (or patient). Information on the form must exactly match the information on the side of the specimen container. If the form is incomplete, and the patient is available, ask the patient for the required information. Also, the NTP needs to know whether the specimens are for diagnosis or follow-up.

A completed Laboratory Request Form should give the following information:

- Name of health center
- Date
- Patient's name, address, age, and sex
- Source of specimen
- Reason for exam (diagnosis or follow-up)
- Specimen ID number
- Signature of person requesting exam

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

After the sputum smear has been read, the result should be written immediately into the result form. **Whenever possible, use a RED pen for positive results.** Check that the number on the slide matches the number on the Laboratory Request form. Subsequently, the results are written onto the Laboratory Register, again checking to make sure that the laboratory serial number matches for both.

The microscopy report should include the following information:

- Specimen ID number (laboratory serial number)
- Date of specimen collection
- Evaluation of the quality of the specimen (e.g., bloody, mucopurulent, saliva)
- Smear result
- Date of examination
- Name and Signature of technician, who performed the microscopy

Once completed, the microscopy report should be made available as soon as possible, preferably no longer than 24 hours after the laboratory receives the specimen.

REPORTING OF RESULTS

The WHO and IUATLD recommended the following quantitation scale:

Reporting scale	AFB seen
Negative	No AFB seen in at least 100 fields
Actual number	1-9 AFB per 100 fields
(1+)	10-99 AFB per 100 fields
(2+)	1-10 AFB per field in at least 50 fields
(3+)	More than 10 AFB per field in at least 20 fields

Send the report to the referring health center or clinician. Never give the microscopy results exclusively to the patient. If the patient fails to bring the results to the health center, he or she may not receive the necessary treatment. Make certain that the health center or clinician receives the result.

THE LABORATORY REGISTER:

The WHO or IUATLD laboratory register is recommended as a guideline. the format of this register should never be altered by laboratory staff.

This is a record book maintained by the technician/technologist responsible for sputum smear examination of patients with suspected tuberculosis and their follow-up examinations. The tuberculosis laboratory register must include the following data for each patient with suspected TB:

The laboratory register should include:

- Laboratory serial number
- TB registration number
- Date the specimen was received
- Patient's name, sex, age, and address
- Reason for exam (diagnosis or follow-up)
- Smear results
- Signature of person responsible for tests

Make sure all necessary columns are completed. However, if patients with suspected TB do not deliver three sputa, leave the data field blank. A blank space is not a negative result. Results must be accurate; scanty results should

be entered as such and not changed to negative or positive. A positive follow-up result must also be registered accurately, whatever the conversion or cure targets may be.

- Reset the laboratory register number to one on January first each year. DO NOT reset at the end of each day, week, or month.
- Enter patients successively, increasing the line number by one each time. The line number is sufficient for identification of the request form.
- Slides require an extension to identify the first (spot), second (morning), or third (spot) sputum of a series. Add "/1" or "/2" or "/3" after the line number.
- Allocate a separate line and serial number in the register to specimens submitted for follow-up examination.

Always fill in the reason for examination (i.e., diagnosis or follow-up). Use a tick mark to indicate whether the specimen is "diagnostic" or "follow-up". Supervisors should analyze the register when conducting a laboratory review as it provides a simple, easy, and rapid summary of the work conducted in a laboratory and assessment of its performance. In positive diagnostic samples, it can be helpful to obtain the patient's registration number from the NTP; this number should be added either under the tick mark or in the remarks column.

False-negatives–consequences

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

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

False-positives–consequences

False-positives means 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.

Key messages



- Accuracy is critical at all levels of reporting and recording.
- Each field must be filled out carefully.
- Recording of results must adhere to NTP guidelines.
- The number of AFB found indicates how infectious the patient is, so it is important to record exactly what you see.



Module Review 8

Find out how much you have learned by answering these questions.

What are the 4 elements required for accurate recordkeeping?

What are the essential data required in the Laboratory Register?

Why is it important to identify whether a specimen is for diagnosis or follow-up?

What are the quantifying categories of smear reading?

What are the consequences of reporting a false-positive result?

Appendix 1

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 _____

Appendix 2

Panel Testing Report form

Participant's Name _____ Date _____

Workshop Place _____

Slide number	RESULTS				
	Negative	Actual number	1+	2+	3+
P-1					
P-2					
P-3					
P-4					
P-5					