Module 8: Recording and Reporting of Smears

Purpose

To provide participants with instruction on how to accurately record and report results in the reading of smears for AFB. This includes training in all data recording in the Laboratory: records, request forms and laboratory registers.

Pre-requisite Modules

Modules 1–7

Module Time

3 hours 35 minutes

Learning Objectives

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

- 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.

Module Overview

Step	Time	Activity/Method	Content	Resources needed
1	15 min	Presentation	Introduction to Module	Slides 1–3
2	10 min	Presentation / Discussion	Laboratory Record Keeping	Slides 4–8, 11–13
3	15 min	Presentation / Discussion	WHO/IUATLD Reporting Recording Guidelines	Slides 9–10
4	15 min	Presentation / Discussion	Consequences of false positives and false negatives	Slides 14–16
5	10 min	Discussion	Summary	Slide 17
6	1 hr	Presentation	Interactive exercise	Slides 18–47
7	1 hr 30 min	Laboratory Exercise	Laboratory Practical Session # 6: Recording and Reporting of Smears	One microscope per two participants

Material and Equipment Checklists

- Hand outs of Laboratory Report forms
- Microscopy Report Forms
- Lab Register form
- Microscopy laboratory with at least one microscope per two participants
- Supplies of immersion oil and lens tissue
- One result recording sheet per participant

Teaching Guide

Slide Number	Teaching Points
1	**Module 8 Recording and Reporting** DISPLAY this slide before you begin the module. Make sure participants are aware of the transition into a new module.
2	**Learning Objectives** STATE the objective on the slide.
3 **Flipchart** 	**Content Outline** (Suggested format) WRITE the content outline before beginning this session. EXPLAIN that these are the topics that will be covered in this module. REFER to flipchart frequently to orient participants to where they are in the module.
4	**Laboratory Record Keeping** STATE the different forms of the record keeping as indicated on the slide. EMPHASIZE the importance of keeping records for future reference. Records should be kept for at least two years, however, specific country polices may require differently.
5 	**Laboratory Request Form – Example** DISPLAY the country specific request form. Show country-specific forms. Request help in interpretation if in another language.
6	**Laboratory Request Form - Content** DISCUSS each field and the significance of having a properly completed request form for sputum examination. EMPHASIZE the importance of identifying whether a specimen is for diagnosis or follow-up? ASK participants to share their experiences with improperly completed request forms and how any problems were resolved. PASS around sputum examination request forms.

Slide Number	Teaching Points
7 	**Microscopy Report – Example** DISPLAY the country specific report form Show country-specific forms. Request help in interpretation if in another language.
8	**Microscopy Request and Report Form – Example** STATE the new version of WHO form that combines request and report form and avoids duplicating the writing and transcription errors. EXPLAIN the similarity of fields in this form
9	**Microscopy Report - Content** DISCUSS each field and the significance of properly completing the microscopy report.
10	**WHO and IUATLD - Positive and Negative Report** STATE message on the slide.
11	**WHO/IUATLD Quantification Scale - Ziehl Neelsen** STATE results from AFB microscopy should be reported according the WHO/IUATLD guidelines. DISCUSS the table containing what to report based on the number of AFB seen and the number of fields examined.
12	**Recording Results** EMPHASIZE the importance of reporting what you see on the smear.
13 	**Laboratory Register - Example** DISPLAY the example of the laboratory register.
14	**Laboratory Register - Content** EXPLAIN each column of register. EMPHASIZE the importance of using a red pen to record positive results.

Slide Number	Teaching Points
15	**False Negatives and Consequences** STATE from the slide and make participants aware of false negative result and its consequence to the patient and to the community.
16	**False positives and Consequences** STATE from the slide and make participants aware of false positive result and its consequence to the patient and to the program.
17	**Summary** ASK participants to answer the questions. ANSWER any other questions the participants may have.

Exercise- Interpretation of smears
At this time, upload the PowerPoint presentation named 'Recording and Reporting Exercise'

Slide Number	Teaching Points
	Exercise-Interpretation of Smears EXPLAIN participants that this powerpoint exercise requires input from them. FAMILIARIZE the participant the sequence in which the slides will go forward ENSURE every one understands the purpose of exercise
 ***TIPS***	**Tips for Exercise** • Make sure everyone can see, you might want to dim the room lights to ensure proper viewing of the slides • Show each slide systematically. Move slowly enough so participants can follow what you are doing – this is slower than normal. • Talk out loud as you move to next slide but keep explanation brief and clear. Describe every step at the same time that you do it. • Point out commonly made mistakes and teach participants how to avoid them.

Slide Number	Teaching Points
18	**Smear contains no AFB in 100 fields.** ASK the audience and tell the interpretation of No AFB Seen.
19	**How will you grade a smear with 9 AFB in 100 fields ?** ASK the audience and tell the interpretation of report actual number
20	**Smear with more than 10 AFB per field.** ASK the audience and tell the interpretation of report 3+
21	**A smear with 1 to 9 bacilli in majority of the fields will be graded as:** ASK the audience and tell the interpretation of report 2+
22	**A smear with 10 to 99 bacilli in 100 fields will be graded as:** ASK the audience and tell the interpretation of report 1+
23	**Smear grade: 3 +** DESCRIBE the procedure of physically counting of bacteria in one field.
24	**Smear grade: 2 +** DESCRIBE the procedure of physically counting of bacteria in one field.
25	**Smear grade: 1 +** DESCRIBE similarly the procedure of physically counting of bacteria in one field.
26	**Smear Grade: Actual** ASK the participants for their input and interpretation
27	**Grade the following smears:** ASK the audience to grade the following smears
28	**Smear-1** ASK the participants to grade and interpret the displayed smear
29	**Grading-1** STATE the result from the slide

Slide Number	Teaching Points
30	**Smear-2** ASK the participants to grade and interpret the displayed smear
31	**Grading-2** STATE the result from the slide
32	**Smear-3** ASK the participants to grade and interpret the displayed smear
33	**Grading-3** STATE the result from the slide
34	**Smear-4** ASK the participants to grade and interpret the displayed smear
35	**Grading-4** STATE the result from the slide
36	**Smear-5** ASK the participants to grade and interpret the displayed smear
37	**Grading-5** STATE the result from the slide
38	**Smear-6** ASK the participants to grade and interpret the displayed smear
39	**Grading-6** STATE the result from the slide
40	**Smear-7** ASK the participants to grade and interpret the displayed smear
41	**Grading-8** STATE the result from the slide
42	**Smear-8** ASK the participants to grade and interpret the displayed smear
43	**Grading-8** STATE the result from the slide
44	**Smear-9** ASK the participants to grade and interpret the displayed smear
45	**Grading-9** STATE the result from the slide

Slide Number	Teaching Points
46	**Credits** STATE from the slide
	Laboratory Practical Session # 6: Recording and Reporting of Smears **Transition to laboratory and reading and reporting of smears** EXPLAIN participants will go to the laboratory for a practical session on reading and reporting the smears INSTRUCT the participants to bring the stained panel slides from Laboratory Practical session #4 DEMONSTRATE the use of microscope and show AFB under the microscope and how to count and report the AFB INSTRUCT the participants to view their panel slides and count and report the results on a sheet provided EMPHASIZE that every one must view all the five panel smears PROVIDE sufficient time so that all the participants can read and report the smears DEBRIEF the session and answer all the queries or doubts
 ***TIPS***	**Tips for Demonstration** • Make sure everyone can see the demonstration • Show each step slowly and methodically. Move slowly enough so participants can follow what you are doing – this is slower than normal. • Talk out loud as you perform each step, but keep explanation brief and clear. Describe every step at the same time that you do it. • Refer to written procedure of reporting the smear results • Point out commonly made mistakes and teach participants how to avoid them. • Repeat steps as necessary • If you repeat the procedure, do exactly the same thing each time.

Laboratory Practical Session # 6: Recording and Reporting of Smears

Materials and Equipment

- One microscope per two participants
- Immersion oil
- Lens tissue paper
- **Stained panel smears from laboratory practical session # 4**
- Result sheet

Procedure

1. DEMONSTRATE the use of microscope
2. SHOW the AFB under the microscope
3. DEMONSTRATE the counting of 100 HPF
4. DEMONSTRATE the counting of AFB
5. EXPLAIN the reporting of smear
6. INSTRUCT the participants to use the five stained panel slides from Laboratory Practical session # 4
7. INSTRUCT the participants to view their panel slides and count and report the results on a sheet provided
8. EMPHASIZE that every one must view all the five panel smears
9. PROVIDE sufficient time so that all the participants can read and report the smears
10. DEBRIEF the session and answer all the queries or doubts