

AFB Microscopy Pre and Post Test Design Document

Note: This test is designed to assess the knowledge and skills of participants before and after. This document is designed as template. Before administering this test, review the entire document to ensure that the questions asked are linked to objectives and actual content delivered. As a result of customization, certain questions included may no longer be applicable. To print for participants, delete the last column named Key.

Module #	Module Name	Question	Key
1	Overview: Tuberculosis, the Global Emergency	(a) Laboratory has significant role in TB control. (T/F) (b) Laboratory personals are required to play greater role in TB program.	T T
2	Safety Precautions for Tuberculosis Microscopy	(a) A routine microscopy service must have a biosafety cabinet (T/F) (b) A routine microscopy service must have an autoclave (T/F) (c) Sputum smear preparation is less hazardous than specimen collection (T/F) (d) Sputum smears should be prepared in a closed dark area so that the procedure doesn't infect other people (T/F)	F F T F
3	Collection and Transport of Tuberculosis Specimens	A good sputum sample: (a) Is less than 2ml in volume (T/F) (b) Is purulent (T/F) (c) Contains nasal mucus (T/F) (d) Shows predominately leucocytes if examined within 2 days of collection (T/F)	F T F T

4	Managing Supplies for Sputum Smear Microscopy	(a) One should wait till all the supplies exhaust before ordering the new supplies. (T/F) (b) It is OK to use the principle of "First expiry first use". (T/F)	F T
5	Preparation of Ziehl-Neelson Reagents	(a) You should always use 0.3% carbol fuchsin stain. (T/F) (b) Acid alcohol is better in busy settings as it will not decolorize the smear. (T/F)	F F
6	Smear Preparation and Staining	(a) Smear thickness and size are irrelevant and does not interfere in the result. (T/F) (b) Fixed smears can be stained on a later date. (T/F) (c) Fixing smear makes them safe to stain as it kills the TB bacilli (T/F)	F T F
7	Microscopy	(a) Slightly blurred image is OK for good microscopy. (T/F) (b) It is less time consuming to view a highly positive smear than a negative smear (T/F) (c) You must see 100 fields even if you have found +++ smear. (T/F)	F T F
8	Recording	(a) It is OK to use your judgement and ignore the actual result while recording the results from smear microscopy (T/F) (b) You should mark the smear as positive for later identification (T/F) (c) One should see all the slides first and then in the end should record results (T/F)	F F F

9	Microscope Maintenance	<p>(a) Xylol can be used to clean the lens (T/F)</p> <p>(b) A handkerchief can be used to clean the lens (T/F)</p> <p>(c) A microscope specialist is required to clean fungus growth from the prisms (T/F)</p>	<p>F</p> <p>F</p> <p>T</p>
10	Assuring Quality of AFB Microscopy	<p>(a) You should pay special attention to proficiency testing panel. (T/F)</p> <p>(b) It is OK to mark the slides as positive for easy identification during proficiency testing. (T/F)</p> <p>(c) Proficiency slides can be re-stained. (T/F)</p>	<p>F</p> <p>F</p> <p>T</p>

Question Bank

Suggested more questions:

Answer true (T) or false (F) to each of the following statements

1. As a laboratorian, what is your role in TB control
 - a) To diagnose TB cases (T/F)
 - b) To report your findings (T/F)
 - c) To provide your judgement in TB cases (T/F)
 - d) To participate in program and raise the laboratory related issues (T/F)

2. An experienced microscopist using a standard light microscope should be expected to:
 - (a) report a maximum of 10 slides per day on average (T/F)
 - (b) report a maximum of 25 slides per day on average (T/F)
 - (c) report a maximum of 100 slides per day on average (T/F)
 - (d) view 10 high power fields before declaring a slide negative (T/F)
 - (e) view 100 high power fields before declaring a slide negative (T/F)

3. Proficiency testing of smear microscopy includes:
 - (a) Sending slides from central to provincial laboratories (T/F)
 - (b) Regular supervisory visits in the field (T/F)
 - (c) Sending slides from provincial to central laboratories (T/F)
 - (d) Our quality control is good, we do not need EQA (T/F)

4. The following are acceptable quality control measures:
 - (a) Testing one positive and one negative slide each time a new batch of stain is produced (T/F)
 - (b) Staining the negative slide three time is not required (T/F)
 - (c) Testing three positive slides once every four months (T/F)

5. The following faults may cause a false-negative sputum result:
 - (a) The smear was made too thick (T/F)
 - (b) Selection of the purulent portion of the specimen (T/F)
 - (c) The carbol-fuschin staining step is allowed to go for less than 2 minutes (T/F)
 - (d) The carbol-fuschin staining step is allowed to go for 10 minutes (T/F)
 - (e) Carbol-fushin is used at a dilution of 0.1% (T/F)
 - (f) Atleast 100 high power fields were viewed before declaring a slide negative (T/F)
 - (g) The slide was overheated during fixation step (T/F)

6. A review of the laboratory register in a well-functioning laboratory should reveal:
 - (a) The rate of smear positive cases per month (T/F)
 - (b) A positivity rate of about 2% among tuberculosis suspects (T/F)
 - (c) A positivity rate of about 10% among tuberculosis suspects (T/F)
 - (d) A positivity rate of about 0% among follow-up cases on treatment (T/F)
 - (e) A positivity rate of about 10% among follow-up cases on treatment (T/F)
 - (f) A positivity rate of about 50% among follow-up cases on treatment (T/F)

- (g) That among smear-positive cases with three specimens collected, 50% have all three slides being positive (T/F)
 - (h) That among smear-positive cases with three specimens collected, 80% have all three slides being positive (T/F)
 - (i) That among smear-positive cases with three specimens collected, that 100% have all three slides being positive (T/F)
7. A central-to provincial proficiency test:
- (a) Represents less work for the central laboratory than a provincial -to-central program (T/F)
 - (b) Produces only a slow assessment of the training needs in the provincial laboratories (T/F)
 - (c) Tests clinical ability (T/F)
 - (d) Is a good test of routine laboratory performance (T/F)
 - (e) Is particularly useful if performed on a regular monthly basis (T/F)
8. The following faults may cause a false-positive sputum result:
- (a) Re-using specimen containers (T/F)
 - (b) Re-using glass slides (T/F)
 - (c) Using filtered carbol-fuschin (T/F)
 - (d) Over-extending the decolorisation step (T/F)
 - (e) Allowing the oil immersion applicator (bottle) to touch the slide (T/F)
 - (f) Allowing the oil immersion applicator (bottle) to touch the lens (T/F)
9. Sending slides from a provincial to central laboratory for proficiency testing:
- (a) Represents a heavy workload for the provincial laboratory (T/F)
 - (b) Is used for testing routine laboratory performance (T/F)
 - (c) Requires no additional personnel in the central laboratory (T/F)
 - (d) Requires a well-functioning network of laboratories (T/F)
10. A provincial laboratory performing TB microscopy services requires:
- (a) Requires a separate area for paperwork and administration (T/F)
 - (b) A staining sink (T/F)
 - (c) A hot-air oven for drying slides (T/F)
 - (d) Windows to keep air circulation(T/F)