



# Supervision Checklist for National / Regional TB Reference Laboratory



IDDS



## **Preamble**

According to the Terms of Reference (TOR) developed and endorsed by the National TB Control Program (NTP) identified the National TB reference laboratory (NTRL) as the apex body for the TB laboratory network of Bangladesh. A major responsibility of the NTRL, inter alia, is to provide oversight to the diagnostic functions of the Regional TB Reference Laboratories (RTRLs) while ensuring that the services are provided in compliance with the national guidelines, Standard Operating Procedures (SOPs) and quality standards. To perform this supervisory function, NTRL \ NTP is required to plan structured monitoring and supervision to the RTRLs routinely. On-site monitoring and supervision are an integral part of the External Quality Assurance (EQA) process. Site visits should be planned at regular intervals to assess the laboratory and testing site practices and adherence to protocols.

NTP has developed this standardized checklist to be used by NTRL \ NTP for the TB reference laboratory networks. This checklist must be utilized for consistency and completeness of information. Supervision visit shall ideally cover all components of testing and laboratory workflow including pre- and post-analytical stages encompassing specimen collection, processing, and testing, recording and reporting results, as well as review and analysis of trends in quality indicators.

## **Method of Monitoring and Supervision**

The monitoring and supervision will be completed through documents review, observation, feedback and recommendations.

## **Frequency of Monitoring and Supervision Visit**

The supervision visit to RTRLs should be conducted once every quarter. The scope of the monitoring and supervision visit will depend on the frequency of the visits, the capacity of the staff, and the performance of the laboratory. More frequent supervision visit might be needed for RTRLs that are not performing well.

## **Intended Users of this checklist**

- Microbiologists from the NTRL \ RTRLs
- NTP managers or program persons accompanied by laboratory expert

# Supervision Checklist for National/Regional TB Reference Laboratory

<b>Name of Laboratory:</b>		<b>Lab Contact:</b>	
<b>Division:</b>		<b>Date of Visit:</b>	
<b>Lab Operational Head:</b>		<b>Contact:</b>	
<b>Name of the Assessor:</b>		<b>Date of Visit:</b>	
<b>Laboratory Facility:</b>	<input type="checkbox"/> Microscopy <b>Culture:</b> <input type="checkbox"/> Solid <input type="checkbox"/> Liquid <b>DST:</b> <input type="checkbox"/> 1 <sup>st</sup> Line <input type="checkbox"/> 2 <sup>nd</sup> Line <input type="checkbox"/> Gene Xpert <b>LPA:</b> <input type="checkbox"/> 1 <sup>st</sup> Line <input type="checkbox"/> 2 <sup>nd</sup> Line <input type="checkbox"/> Others: (specify, if any)		

## 1. Laboratory Staff:

Type	Name	Contact no.	Organization	Remarks
<b>Manager / Supervisor</b>	1.			
	2.			
<b>Micro biologist</b>	1.			
	2.			
	3.			
<b>MT Lab / Techno Logist</b>	1.			
	2.			
	3.			
	4.			
	5.			
<b>Lab Attendant / Assistant</b>	1.			
	2.			
	3.			
	4.			
	5.			
<b>Other Staffs</b>	1.			
	2.			
	3.			
	4.			
	5.			

## 2. Training Status of Laboratory Staff:

Name of Staff	Sample Referral	Microscopy	Gene Xpert	Truenat	Culture / DST	LPA	RT-PCR	Biosafety / Biosecurity	Laboratory Quality Management System	Preventive Maintenance
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

## 3. Laboratory Testing Service:

Name of Test		Test performed in Previous Quarter	Workload per day* (Quarterly Test performed/72 days)	Remarks
Sputum Microscopy				
Truenat				
Solid Culture				
Liquid Culture				
DST	1 <sup>st</sup> Line			
	2 <sup>nd</sup> Line			
LPA	1 <sup>st</sup> Line			
	2 <sup>nd</sup> Line			
Gene Xpert	1 <sup>st</sup> Line			
	2 <sup>nd</sup> Line			
Other Test				

\*Average 24 working days in a month

## 4. Key Performance Indicators (for last quarter)

Name of Tests	External Quality Assurance (EQA) (Yes/No)	KPI	Evaluation
Microscopy		• Number of tests performed	
		• Number of AFB detected	
Truenat		• Number of tests performed	
		• Number of TB detected	
		• Number of RR TB detected	

		<ul style="list-style-type: none"> <li>Number of unsuccessful tests</li> </ul>	
<b>Gene Xpert</b>		<ul style="list-style-type: none"> <li>Number of tests performed</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of TB detected</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of RR TB detected</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of unsuccessful tests</li> </ul>	
		<ul style="list-style-type: none"> <li>Laboratory Turnaround Time (Sample receipt to result from reporting card)**</li> </ul>	
<b>LPA</b>		<ul style="list-style-type: none"> <li>Number of samples that become sputum smear positive</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of LPA tests performed</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of FLQ Sensitive</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of FLQ Resistant</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of Negative results</li> </ul>	
		<ul style="list-style-type: none"> <li>Number of non-interpretable results</li> </ul>	
		<ul style="list-style-type: none"> <li>Average Laboratory Turnaround Time (Sample receipt to result reporting)**</li> </ul>	
<b>Solid Culture</b>		<ul style="list-style-type: none"> <li>Proportion of contaminated cultures leading to the uninterpretable result</li> </ul>	
		<ul style="list-style-type: none"> <li>Culture positivity rate (number of tubes with positive growth/number of tubes inoculated)</li> </ul>	
		<ul style="list-style-type: none"> <li>Average Laboratory Turnaround Time (Sample receipt to result reporting)**</li> </ul>	
<b>Liquid Culture/DST</b>		<ul style="list-style-type: none"> <li>Proportion of contaminated cultures leading to the uninterpretable result</li> </ul>	
		<ul style="list-style-type: none"> <li>Culture positivity rate (number of tubes with positive growth/number of tubes inoculated)</li> </ul>	
		<ul style="list-style-type: none"> <li>Average Laboratory Turnaround Time (Sample receipt to result reporting)**</li> </ul>	
		<ul style="list-style-type: none"> <li>Proportion of isolates inoculated for DST that were discarded due to contamination (Number of isolates discarded due to contamination / Total number of isolates inoculated for DST)</li> </ul>	
		<ul style="list-style-type: none"> <li>Proportion of isolates inoculated for DST that were uninterpretable due to lack of growth of control (drug-free) tubes (Number of isolates discarded due to lack of growth on drug-free media / Total number of isolates inoculated for DST)</li> </ul>	

\*\*Note: Pick 5 samples randomly to calculate TAT within the reporting period.

Sl No.	Parameters	Yes	No	
5.	Availability of SOP?			If yes, write the name of the SOPs
6.	Availability of Job Aids?			If yes, write the name of the SOPs
7.	Observe whether the staff follows Good Microbiological Practices.			If no, please write the specific observations

8.	Check whether all the required equipment has valid certification.			If no, write the name of the equipment and due date of certification
9.	Does the laboratory have any service interruption?			If yes, please write the reasons
	a) Stock out			If yes, please write the reasons
	b) Equipment downtime			If yes, please write the reasons
10.	Does the laboratory have a proper waste management system in place?			If no, please write the reasons
11.	Does the laboratory have proper biosafety measures in place?			If no, please write the reasons
12.	Does the laboratory have an uninterrupted power supply place?			If no, please write the reasons
13.	Does the laboratory have up-to-date records and registers?			If no, please write the reasons

	Name of Tests	Last PT Test Result
a.	Gene Xpert	
b.	LPA	
c.	Culture & DST	

**5. Remarks:**

**Supervision Checklist filled by:**

Name:

Designation:

Organization:

Signature with Date: