

Minutes of 12th Lab committee meeting held on 28th& 29th September , 2007 at NTI, Bangalore

The 12th meeting of Laboratory Committee of RNTCP was held at NTI, Bangalore on 28th& 29th September 2007. List of participants is annexed at Annexure-I.

DAY I- 28th September,2007

Dr. P. Kumar, director, NTI welcomed the participants to the two day meeting at NTI. DDG in his introductory speech briefly highlighted the objectives and agenda for the meeting. The objectives of the meeting were mainly to:

- Update the status of IRL strengthening in various states
- Review of DRS &DOTS Plus activities
- Progress of SLD DST at NRLs

The TB programme in India revolves around the laboratory network and efforts are being made to further strengthen this network. Enhanced support from the National Reference Laboratories (NRLs) including JALMA Institute is needed for better performance of the peripheral laboratories.

DDG remarked that we need to expedite the process of accreditation of all the Intermediate Reference Laboratories (IRLs). The NRLs (NTI, TRC, LRS and JALMA) should take up this issue on priority and complete the process at the earliest.

DRS activities

The report on the Drug Resistance Surveillance conducted in Maharashtra (from November 2005 to November 2006) was presented by NTI, Bangalore. This report shows that the level of MDR-TB isolates amongst 'new' cases is 2.7% and among 'previously treated' cases is 13.8%. The culture negativity of the specimens were around 17% and contamination rate was around 7% in both 'new' and 'previously treated' cases. The members opined that the high contamination rate and culture negativity may have been due to long transportation time between collection and receipt of specimens at NTI. They also opined that such a high contamination and smear negativity casts some doubt on the representativeness of the data. Therefore, a statistician may be requested to have a look at the results for representativeness and possible biases. It was also suggested to look into other issues like quality of smear microscopy and preparation method/quality of CPC as around 25% samples were smear negative at NTI during examination.

The analyses of the DRS methodology and results from the Gujarat and Maharashtra surveys showed that many of the patients who were Cat I/III failures were not included in the 'previously treated cases' category of the survey.

The Director of STDC, Andhra Pradesh presented an update on the pilot study of the DRS conducted in the state. He elaborated the operational and technical problems faced during the study and suggested possible solutions. DDG pointed out that as AP has already sent the cultures for proficiency testing to TRC, TRC should expedite the exchange of cultures with AP for facilitation of accreditation process and all NRLs should take leadership in respect to accreditation of their assigned IRLs.

An update on the DRS survey in Orissa was presented by microbiologist of IRL, Cuttack. The DMC wise data for cluster sampling was sent to NTI recently. EQA is still not fully implemented in all the districts of Orissa. The members agreed that well implemented EQA is mandatory before starting DRS. The training for all DTOs in EQA must be conducted and EQA should be implemented as per guidelines in all the districts at the earliest. The state may

prepare an action plan for the DRS survey and present it during the next state level review meeting.

The protocol for DRS survey of western UP, which will be supported by the JALMA Institute, has been approved and the study will be initiated soon.

Based on the discussions, following decisions were taken by the committee

- The transportation time between collection of specimens by the districts of Maharashtra and receipt of specimens at NTI should be reduced as far as possible
- The quality of smear microscopy, preparation method/quality of CPC etc should be checked during the pre-accreditation visit by the NRL team to Nagpur
- An amended Clinical Information Form, which gives details about previous treatment history should be used in AP and other future DRS studies
- A DRS survey may be conducted among the RNTCP pulmonary TB Category I/III patients who are failing treatment.
- EQA should be implemented in all the districts of Orissa before starting DRS
- In all future DRS surveys, patients will have to be informed of their MDR-TB diagnosis, and referred to whatever care is available, including RNTCP Cat IV.

Review of accreditation process of 13 IRLs (The revised action plan is at Annexure II)

The status of accreditation process of 13 IRLs (Andhra Pradesh, Gujarat, Maharashtra, Kerala, Orissa, Tamil Nadu, West Bengal, Rajasthan, Uttaranchal, Chhattisgarh, Jharkhand, Haryana and Delhi) were reviewed in detail by the committee.

Infrastructure:

The culture and DST equipments were installed in all the IRLs except Orissa and Jharkhand where the installation will be completed by October 2007.

Human resources:

All states are having microbiologist and LTs in place in their IRLs except Uttaranchal (both microbiologist & LTs) Jharkhand and Chhattisgarh (LTs). C&DST training for all the microbiologists has been completed except of Chhattisgarh who will be trained at TRC soon.

Status of accreditation process:

Pre-accreditation visit to Haryana, Kerala and Andhra Pradesh was undertaken by the central team. The IRLs of Haryana and Gujarat have started doing cultures in their laboratory and Kerala will start by October 2007 after filling up the posts of lab assistants. IRLs of Delhi and AP have sent cultures to their respective NRLs for proficiency testing. The list of cultures from Gujarat has been sent to TRC as part of proficiency testing procedure.

The proficiency testing between IRL, Nagpur (Maharashtra) and NTI is almost completed. There was good concordance between the two labs for Rifampicin (100%) and Isoniazid(94%) testing. But concordance for Streptomycin (67%) and Ethambutol (83%) was not satisfactory. The cultures sent by IRL, Nagpur had crumbled during transportation and the cultures had to be resent by the IRL.

Microbiologist from IRL, Karnal pointed out that few of the equipments at their laboratory needs practical demonstration as even NRL was unable to handle these equipments.

Based on the discussions following decisions were taken by the committee

- The states of Uttaranchal, Chhattisgarh & Jharkhand should take immediate action to ensure that the essential staff in their IRL are appointed as these states are funded by

performance linked grant in aid by GFATM. The IRL activities cannot be started in these states without the Microbiologist and LTs.

- The STO Tamil Nadu should take up the issue at the appropriate level to post 3 more LTs in IRL, Chennai and get them trained at TRC at the earliest.
- Pending appointment of lab Technicians and lab assistants for IRL Kerala to be completed at the earliest
- As an interim arrangement, accreditation to the IRL can be given on the basis of R&H concordance which will speed up the process, but the IRLs should continue to do Streptomycin and Ethambutol sensitivity testing.
- The accreditation visit to IRL, Nagpur will be undertaken on the 10th of October by NTI.
- The state of Haryana needs to expedite the process of accreditation to utilize the available second line anti TB drugs. It is agreed by the committee that samples of MDR TB suspects may be sent to LRS Institute from January 2008 to expedite the initiation of DOTS Plus treatment in Haryana.
- The newly appointed contractual Microbiologist along with two remaining untrained LTs from Karnal and one LT from IRL, Delhi to be trained at LRS Institute in C& DST.
- The committee suggested that a request may be sent by the state of Haryana to CTD giving details of the problems identified with C&DST equipments so that the matter can be taken up with respective authorities.
- Ducting for the bio-safety cabinets can be done at IRL Karnal for additional safety purpose.
- The states which need generator back up for the IRLs may take up this issue in the state society for necessary assistance from the state/NRHM.

Accreditation of Medical college mycobacterial culture laboratories

The states should actively encourage the medical colleges who are involved in RNTCP for accreditation of their mycobacteriology culture labs. But at the same time it should not be disproportionate and too many labs need not to be accredited in a state. The recurring cost of consumables in a government medical college may be met from the state budget/NRHM or from the available RNTCP budget for this purpose which can be shared between the labs.

STOs of Tamil Nadu and Rajasthan may take necessary steps to facilitate the accreditation process of the C&DST labs of CMC, Vellore and SMS Jaipur respectively.

Proposal for accreditation of private laboratories

The committee also suggested that well functioning culture labs of private hospitals who are involved in RNTCP activities, with adequate human resources and infrastructure may be accredited under RNTCP for doing C&DST activities. Appropriate scheme may be developed and incorporated into NGO/PP guidelines by CTD

Update of DOTS Plus activities

24 MDR cases were started on treatment at Ahmedabad and 1 case was on treatment at Nagpur. High contamination rate and smear negativity were a major problem in the samples of MDR TB suspects sent to NTI from Maharashtra.

The states of Haryana, Kerala, Rajasthan and Delhi may prepare a detailed DOTS Plus action plan and discuss with CTD.

Update on second line drug sensitivity testing

TRC presented an interim report on second line DST conducted on the isolates found to be MDR-TB from the DRS survey in Gujarat. There were 5 cases of XDR TB out of 128 MDR TB cases from "the previously treated" category. However, no XDR TB isolates found in the category of 'new' cases. The report also showed high fluoroquinolone resistance (mono

resistance) among the MDR TB isolates. In view of high rate of fluoroquinolone resistance (around 25%), advocacy among health care providers in NTF and IMA meeting needed for the rational use of second line drugs.

Exchange of panel of cultures for second line DST to be conducted between the four NRLs till international guidelines developed. NTI &TRC and LRS &JALMA may coordinate with each other in this activity.

Operational research: Sputum collection study by Gujarat

A study conducted by the state of Gujarat to analyse the feasibility of collecting sputum at PHIs and then transported to the DMCs was presented by the STDC Director, Gujarat. The aim of the study was to improve access of diagnostic services under RNTCP through sputum collection and transportation system from remote peripheral health institutes (sputum collection centres) to the designated microscopy centres in the districts of Gujarat and thereby improve case detection rate. The study concluded that

- 3 TUs showed improvement in TB suspects examined per lakh
- 90% patients interviewed found it convenient to travel to PHIs (sputum collection centers) from home
- Quality of samples need to be improved further through training
- Ownership by General health staff, supervision and monitoring crucial
- Mean travel cost was found to be higher than the available norm for honorarium for sputum collection and transport

The committee appreciated the state in conducting such a study though more such studies and wider analysis needed to support the findings. If the actual transportation cost is more than the honorarium then the actual bus fare may be reimbursed by the respective health society.

Lab experts from TRC suggested that adding phenol crystals or Phenol Ammonium Sulphate into the sputum makes the sample non-infectious to the lab technicians who open the cups and also reduce the foul smell and it does not affect the sputum positivity. The committee suggested that feasibility of this method can be tested in few districts of Gujarat.

Quality Assurance of microscopy and Culture in TB prevalence studies

Fluorescent microscopy (FM) will be used by all the centres for TB prevalence study and as no External Quality assessment methods are available at present to check the quality of FM, IQC procedures are to be followed as per the RNTCP fluorescent microscopy manual. Also on site evaluation and analysis of results of pilot study may be done by the NRLs.

The sputum samples may be transported in a refrigerator/ice box as such without adding CPC to increase the yield of specimens. But it is understood that some of the prevalence study centres are processing the sputum specimens with CPC. Therefore a decision regarding this may be taken after discussing with members from all prevalence study centres during the next DOTS-Plus committee meeting

Update on FIND project

An update on the ongoing FIND project was presented by CTD. FIND would assist the CTD in diagnostic Demonstration Projects by establishing liquid culture and DST (MGIT), speciation of *M. tuberculosis* and detection of Rifampicin resistance using phage assay etc. The duration of the demonstration project will be initially for 3 years.

The three demonstration sites to be established are at LRS Institute, New Delhi, STDC, Gujarat (Ahmedabad) and STDC, Maharashtra (Nagpur), FIND has independently signed an

MoU with SMS Medical College, Jaipur which will function as a demonstration site for MGIT and other tests, and also provide training to microbiologists of other demonstration sites

Registration of Fluorescent Microscopy positive patients under RNTCP

The committee opined that Fluorescent Microscopy can be taken as reliable method if the lab personnel are doing the procedure correctly and certified by one of the NRLs.

Gastric aspirate and microscopy may be included in the Paediatric diagnostic algorithm and these patients are to be registered in the TB register.

Day 2: 29th September 2007

The objectives of the meeting were to review the status of EQA activities across the states and also how to evaluate, improve and/or amend the procedure.

The meeting started with an introductory speech by DDG (TB). DDG opined that we need to assess why the process is lagging behind in some states and whether it is because of complicated EQA protocol or due to poor commitment from the programme managers. JMM 2006 had also recommended that the programme may undertake a comprehensive review of EQA activities across the states.

EQA implementation status

The NRLs submitted the status of their activities on the EQA reporting format. (at Annexure III & IV). NTI, Bangalore visited Madhya Pradesh and TRC, Chennai visited 4 states (Sikkim, Punjab, Gujarat and Andhra Pradesh) in this quarter. LRS Institute did not visit any state during this quarter. Presentations were made by the respective NRLs on their field visits and activities undertaken by them during the quarter. NTI conducted culture and DST training for the IRL staff from Jharkhand and West Bengal in September 2007. LRS Institute and TRC conducted C&DST training for IRL LTs from Delhi and Kerala.

The lab committee recommended that the NRL OSE team should meet the health secretaries of the states after the OSE visit and brief him/her regarding the findings and CTD may be requested to facilitate this process. NRL OSE visits should focus on issues such as whether

- EQA implementation in the districts have resulted in improving the quality of microscopy services,
- the reports are user friendly in the field,
- the districts and IRL are analyzing the errors with Annexures B,C& D.

A presentation on JMM recommendations was made by Dr. Fraser and the committee discussed the recommendations pertaining to EQA in detail.

1. All states should ensure to implement EQA in all the districts by March 24th 2008
2. It should be communicated to the field level by the programme managers that External Quality Assessment (EQA) is not a fault finding mission, but it is only a method by which continuous improvement of microscopy services can be assured.
3. The committee agreed that panel testing by the NRL and IRLs should continue as per protocol but patient smears can be used instead of manufacturing of smears. A report regarding this may be presented by Dr. Ranjani during the next lab committee meeting.
4. While assessing the effectiveness of the EQA protocol, we should look at the trend of high false errors, no errors and quantification errors.

5. The NRLs should assist and build the capacity of the IRLs for effective analysis and interpretation of data. Indicators for analyzing the data to be developed by NTI and share with other NRLs , finalize and present it in the next lab committee meeting.
6. Annexure E: This report should be sent to IRL of the respective state and no need to send to NRL every month. The DTO should validate the reports before sending to IRL and also should ensure that the action taken based on the errors is mentioned in the remarks column against each DMC.
7. The committee agreed that the three components of Quality Assurance (IQC, EQA & QI) have made some improvement in the quality of microscopy in the districts where it has been well implemented for some time.
8. OSE should continue as per the present guidelines. But as the STLS OSE checklist seems exhaustive and repetitive every month, it can be made simpler after careful analysis by a small group under the leadership of Dr.Selva Kumar.
9. Documentation of IQC procedures is a problem in most of the districts. The usage of this should be re-emphasized and the excel sheet available with NTI should be sent to all the NRLs/states for this purpose.
10. At district level Annexure C should be reviewed regularly by the DTO and also during NRL/IRL OSE visits and if there is discrepancy between 1st Controller and Umpire, corrective actions must be taken. Umpire reading also should be blinded (results can be given, but not the identity of the reader) to ensure accuracy.
11. Annexure M – The utility of sending this report to IRL and its frequency may be discussed during the next STO-Consultant meeting.
12. The currently available EQA data is to be analyzed by TRC & NTI to evaluate whether EQA implementation has led to an improvement in the quality of smear microscopy services provided by RNTCP and with any resultant impact on the programme indicators. The analysis may be reviewed by the members of the lab committee and a manuscript may be developed for publication.
13. Annex.G: As discussed during the meeting on recording and reporting, SPR may be removed and add the number of DMC in each district as a separate column

Culture and DST Laboratory Performance Indicators

Dr. Dewan made a presentation on culture and DST laboratory performance indicators. These proposed Standardized Indicators for Culture and DST Laboratories can help NRLs, maintain organized and standardized measures to assess laboratory quality and improvements/worsening in quality over time, and allow them to focus and guide their supervision activities. Systematic assessment of laboratory quality should be built into the system, and resistant to changes in personnel. Culture and DST lab staff should understand that their service quality will be subject to ongoing scrutiny, in the form of quarterly reports and an annual round of proficiency evaluation. A draft document on this may be made and circulated among lab experts before finalization.

List of Participants

1. Dr. L. S. Chauhan, DDG (TB)
2. Dr. Prahlad Kumar, Director, NTI, Bangalore
3. Dr. Vishwa Mohan Katoch, JALMA, Agra
4. Dr. Selva Kumar, TRC, Chennai
5. Dr. Vanaja kumar, TRC Chennai
6. Dr. Manpreet Bhalla, LRS Institute, Delhi
7. Dr. Ranjini Ramachandran, TRC Chennai
8. Dr. S. Sahu, NPO (TB), WHO India
9. Dr. Fraser Wares, MO(TB), WHO India
10. Dr. Puneet Dewan, MO(TB), WHO-SEARO
11. Dr. P.V. Dave, STO, Gujarat
12. Dr. T.V. Bhalodia, Director, STDC, Ahmedabad
13. Dr. Sreelatha, STDC Director, Trivandrum
14. Dr. Praveen Shanker, Microbiologist, STDC, Trivandrum
15. Dr. N. Joshi, Microbiologist, STDC, Ahmedabad
16. Dr. Sai babu, STO, Andhra Pradesh
17. Dr. A.V.V. Sathyanarayana, STDC Director, Andhra Pradesh
18. Dr. Vijaya Lalitha, Microbiologist, STDC, Hyderabad
19. Dr. V.P. Yaole, STO, Maharashtra
20. Dr. Abhay Gajbiye, STDC Director, Nagpur
21. Dr. V.K. Dhingra, STDC Director, Delhi
22. Dr. M. Haneef, Microbiologist, Delhi
23. Dr. Sant Lal Verma, Microbiologist, IRL, Karnal
24. Dr. B.S. Sarwa, STO, Chhattisgarh
25. Dr. K.K. Patel, Microbiologist, IRL, Chhattisgarh
26. Dr. Vijayashree, RNTCP Consultant, Chhattisgarh
27. Dr. Sahay, STO, Jharkhand
28. Dr. R.P. Singh, STDC Director, Jharkhand
29. Dr. Ranjith Prasad, Microbiologist, IRL, Jharkhand
30. Dr. A.P. Mmagain, STO, Uttaranchal
31. Dr. Subburam, STO, Tamil Nadu
32. Dr. Madhumati, Microbiologist, IRL, Chennai
33. Dr. B.L. Asawa, STDC Director, Ajmer
34. Dr. Tarun Tapni, Microbiologist, IRL, Ajmer
35. Dr. Anjan Debnath, STDC Director, West Bengal
36. Dr. Somthirta B. Ganguly, Microbiologist, IRL, West Bengal
37. Dr. P.N. Mohanty, Microbiologist, IRL, Orissa
38. Dr. Anand, NTI, Bangalore
39. Dr. Reena, NTI, Bangalore
40. Dr. Sarabjit Chadha, RNTCP Medical Consultant, Central TB Division
41. Dr. Yamuna Mundade, RNTCP Medical Consultant, Central TB Division
42. Dr. Geetanjali Sharma, RNTCP Medical Consultant, Central TB Division
43. Dr. Sheena Susan George, RNTCP Medical Consultant, Central TB Division

Update & Revised Action Plan for Accreditation of culture labs

State	NRL	Activities/ Remarks	Timeline(as on 31 st March, 2007)	Actions taken(as on 20 th September 2007)	Revised action plan(28 th September 2007)
Gujarat	TRC	1. Training of Microbiologist & LTs in C&DST	April 2007	Yes	
		2. Bio-safety certification of equipments	April 2007	Yes	
		3. Fill up the application form & send to NRL & CTD	April 2007	Yes	
		4. NRL pre assessment visit to IRL	May 2007	Yes	
		5. Starting of cultures(Pilot study)	May 2007	Yes	
		6. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	July-August 2007	(list sent to TRC for selection)	September/October
		7. Results of proficiency testing	October 2007		December 2007
		8. Accreditation visit by NRL	November 2007		January 2008
		9. Time for corrective actions	December 2007		Jan-Feb 2008
		10. Accreditation	Dec 07/Jan08		Feb-march 2008
		11. Intake of first MDR suspect	March 2007 (at NRL)	Yes	
		12. First MDR-TB patient registered for Cat IV treatment	May/June 2007	August	
Maharashtra	NTI	1. Bio safety Certification of the equipments	April-May 2007	No	October 2007

ra		2.Fill up the application form & send to NRL& CTD	May 2007	Yes	
		3.NRL pre assessment visit to IRL	June 2007		
		4.Pilot study started	Feb 2007	Yes	
		5. Send existing cultures / Exchange of strains with NRL(NRL ↔ IRL)	February 2007	Yes	
		6. Results of proficiency testing	May 2007	Yes(NRL to IRL)	
		7. Accreditation visit	June 2007		October 2007
		8. Time for corrective actions	June 2007		November 2007
		9. Accreditation	July 2007		December 2007
		10. Intake of first MDR suspect	March 2007 (at NRL)	Yes	
		11. First MDR-TB patient registered for Cat IV treatment	May/June 2007	September	
	Andhra Pradesh	TRC	1. Installation of equipments	April 2007	Yes
2.Biosafety certification of equipments			April 2007	Yes	
3.Fill up the application form & send to NRL& CTD			April 2007	Yes	
4.NRL pre assessment visit to IRL			May 2007	Yes	
5. Pilot study started (on existing BS Cabinet)			Jan 2007	Yes	
6. Send existing cultures / Exchange of strains with NRL(NRL ↔ IRL)			April 2007	July (IRL to TRC sent, (TRC to IRL pending)	October 2007
7. Results of proficiency testing			July 2007	October 2007	October/December 2007
8. Accreditation visit			August 2007		December 2007
9. Time for corrective actions			September 2007		Dec-Jan 2008
10. Accreditation			October 2007		Dec-January 2008
11. Intake of first MDR suspect			November 2007		January 2008
12. First MDR-TB patient registered for			January 2008		March 2008

		Cat IV treatment					
Kerala	TRC	1. Training for the untrained LTs in C& DST	April/May 2007	Yes		October 2007	
		2. Installation of equipments	April 2007	Yes			
		3. Bio safety certification of equipments	May 2007	Yes			
		4. Fill up the application form & send to NRL& CTD	May 2007	Yes			
		5.NRL pre assessment visit to IRL	June 2007	Yes(August)			
		6.Starting of cultures(Pilot study)	June 2007			November 2007	
		7. Send cultures / Exchange of strains with NRL(NRL↔IRL)	September 2007			January 2008	
		8. Results of proficiency testing	November 2007			April 2008	
		9. Accreditation visit	December 2007			April-May 2008	
		10. Time for corrective actions	January 2008			May 2008	
		11. Accreditation	February 2008			May-June 2008	
		12. Intake of first MDR suspect	March 2008			June 2008	
		13. First MDR-TB patient registered for Cat IV treatment	June 2008			August 2008	
Haryana	LRS	1. Training of untrained LTs in C&DST	May 2007			October 2007	Plan B
		2. Installation of equipments	April 2007	Yes			
		3.Bio safety certification of equipments	April 2007	No		October	
		4. Fill up the application form & send to NRL& CTD	May 2007	Yes			
		5.NRL pre assessment visit to IRL	June 2007	Yes(June)			
		6.starting of cultures(Pilot study)	June 2007	September			
		7. Send cultures / Exchange of strains with NRL(NRL↔IRL)	September 2007			Jan 2008	
		8. Results of proficiency testing	November 2007			April 08	
		9. Accreditation visit	December 2007			April-may 08	
		10. Time for corrective actions	January 2008			May 08	

		11. Accreditation	February 2008		May-June 2008	
		12. Intake of first MDR suspect	March 2008			Jan 08 (samples to be send to LRS)
		13. First MDR-TB patient registered for Cat IV treatment	June 2008			March-April 2008

Delhi	LRS	1. Training of Microbiologist & LTs in C&DST	April 2007	Yes				
		2. Bio-safety certification of equipments	April 2007	Yes				
		3. Fill up the application form & send to NRL & CTD	May 2007	Yes				
		4. NRL pre assessment visit to IRL	June 2007	No	October 2007			
		5. Starting of cultures (pilot study)	June 2007	Yes				
		6. Send cultures / Exchange of strains with NRL (NRL ↔ IRL)	September 2007	September 2007				
		7. Results of proficiency testing	November 2007		December 2007			
		8. Accreditation visit by NRL	December 2007		Dec-Jan 2008			
		9. Time for corrective actions	January 2008		Jan 08			
		10. Accreditation	February 2008		Feb 2008			
		11. Intake of first MDR suspect	March 2008		March 2008			
		12. First MDR-TB patient registered for Cat IV treatment	June 2008		June 2008			
		Rajasthan	NTI	1. Training of Microbiologists & LTs in C&DST	April 2007	Yes		<i>Plan B</i>
				2. Installation of equipments	April 2007	Yes (August)		

		3.Bio safety Certification of the equipments	May 2007	Yes		
		4.Fill up the application form & send to NRL& CTD	June 2007	Yes		
		5.NRL pre assessment visit to IRL	July 2007	No	October 2007	
		6.Starting of cultures(pilot study)	July 2007	No	November 2007	
		7. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	October 2007		Feb 2008	
		8. Results of proficiency testing	January 2008		May 2008	
		9. Accreditation visit	February 2008		June 2008	
		10. Time for corrective actions	March 2008		July 2008	
		11. Accreditation	April 2008		August 2008	
		12. Intake of first MDR suspect	May 2008		September 2008	May 08(samples to be sent to NTI)
		13. First MDR-TB patient registered for Cat IV treatment	August 2008		December 2008	August 08
Tamil Nadu	TRC	1. appointment of 3 LTs & their training	June 2007	No(only one LT)	October 2007	
		2.Installation of equipments	April 2007	Yes		
		3.Biosafety certification of equipments	April 2007	Yes		
		4.Fill up the application form & send to NRL& CTD	May 2007	Yes (September)		
		5.NRL pre assessment visit to IRL	June 2007		October 2007	
		6. Starting of cultures(Pilot study)	June 2007		November 07	
		7. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	September 2007		Feb 08	
		8. Results of proficiency testing	October 2007		June 2008	
		9. Accreditation visit	November 2007		July 2008	

		10. Time for corrective actions	Dec 2007		August 2008	
		11. Accreditation	Jan 2008		September 08	
		12. Intake of first MDR suspect	Feb 2008		September 08	
		13. First MDR-TB patient registered for Cat IV treatment	May 2008		December 2008	
Orissa	NTI	1. Installation of equipments	April 2007	No	October 2007	Plan for DRS Survey(state to make an action plan)
		2. Bio safety certification of equipments	May 2007	No	October 2007	DRS protocol to be sent for approval- Nov07
		3. Fill up the application form & send to NRL& CTD	May 2007	No	November 2007	Training for the staff-
		4.NRL pre assessment visit to IRL	June 2007		December 2007	Pilot study for DRS-
		5.Starting of cultures(Pilot study)	June 2007		January 08	
		6. Send cultures / Exchange of strains with NRL(NRL↔IRL)	September 2007	DRS data sent to NTI for cluster sampling	April 08	
		7. Results of proficiency testing	November 2007		June 08	
		8. Accreditation visit	December 2007		July 08	
		9. Time for corrective actions	January 2008		August 08	
		10. Accreditation	February 2008		September 08	
		11. Intake of first MDR suspect	March 2008		October 08	
		12. First MDR-TB patient registered for Cat IV treatment	June 2008		Jan 09	
West Beng	NTI	1.Posting of Microbiologist	??May 2007	Yes(July)		
		2.Training of microbiologist & LTs	June 2007	yes(September)		

al		3. Installation of equipments	May 2007	Yes	
		4.Bio safety certification of equipments	May 2007	Yes	
		5. Fill up the application form & send to NRL& CTD	July 2007	No	October 07
		6.NRL pre assessment visit to IRL	August2007		November 07
		7.starting of cultures(Pilot study)	September 2007		November 07
		8. Send cultures / Exchange of strains with NRL(NRL↔IRL)	December 2007		March 08
		9. Results of proficiency testing	February 2008		June 08
		10. Accreditation visit	March 2008		July08
		11.Time for corrective actions	April 2008		August 08
		12.Accreditation	May 2008		September 08
		13. Intake of first MDR suspect	June 2008		September 08
		14. First MDR-TB patient registered for Cat IV treatment	September 2008		December 08

Jharkhand (LTs must be posted in the IRL at the earliest)	NT I	1. Posting of LTs in IRL	??April/May 2007	No	October 07
		2.Training of Microbiologists& LTs in C& DST	May /June 2007	Yes(September-MB)	
		3.Installation of equipments	May 2007	No	October
		4.Bio-safety certification of equipments	May 2007	No	November 07
		5.Fill up the application form & send to NRL& CTD	July 2007	No	December 07
		6.NRL pre assessment visit to IRL	August 2007		January 08
		7.Starting of cultures (pilot study)	September 2007		January 08
		8. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	December 2007		April 08
		9. Results of proficiency testing	March 2008		July08

		10. Accreditation visit by NRL	April 2008		August 08
		11. Time for corrective actions	May 2008		September 08
		12. Accreditation	June 2008		October 08
		13. Intake of first MDR suspect	July 2008		October08
		14. First MDR-TB patient registered for Cat IV treatment	October 2008		Jan 09
Uttaran chal (this time lines depend s on the comple tion of civil works and appoint ment of staff in the IRL)	LR S	1. Appointment of Microbiologist& LTs in IRL	??June 2007	No	October 07
		2.Training of Microbiologists & LTs in C& DST	?August 2007	No	November 07
		3.Completion of civil works	May 2007	Yes	
		4.Installation of equipments	June 2007	Yes	
		5.Bio safety Certification of the equipments	June 2007	Yes	
		6.Fill up the application form & send to NRL& CTD	?August 2007	No	December07
		7.NRL pre assessment visit to IRL	September 2007		January 08
		8.Starting of cultures(pilot study)	October 2007		February 08
		9. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	January 2008		May 08
		10. Results of proficiency testing	April 2008		August 08
		11. Accreditation visit	May 2008		September 08
		12. Time for corrective actions	June 2008		October 08
		13. Accreditation	July 2008		November 08
		14. Intake of first MDR suspect	August 2008		November08
		15. First MDR-TB patient registered for Cat IV treatment	November 2008		Feb 09
Chhatti sgarh (depend s on	TR C	1. appointment of Microbiologist & LTs	??June 2007	Microbiologist posted, No LTs	December
		2. Training of the staff	??July 2007	MB did not complete training	October


appointment of staff at the IRL)	3. Installation of equipments	April/May 2007	Yes	
	4. Biosafety certification of equipments	May 2007	Yes	
	5. Fill up the application form & send to NRL & CTD	August 2007	No	November 07
	6. NRL pre assessment visit to IRL	September 2007		December 07
	7. Starting of cultures(Pilot study)	October 2007		December 07
	8. Send cultures / Exchange of strains with NRL(NRL ↔ IRL)	January 2008		April 08
	9. Results of proficiency testing	April 2008		July 08
	10. Accreditation visit	May 2008		August 08
	11. Time for corrective actions	June 2008		September 08
	12. Accreditation	July 2008		October 08
	13 Intake of first MDR suspect	August 2008		November 08
	14. First MDR-TB patient registered for Cat IV treatment	November 2008		Feb 08

States	HRD status at IRLs						EQA Training					Panel test slides	Reporting-district to IRL						Dist OSE by IRL
	Director		Microbiologist		LTs		DTOs		STLS		Annex E		Annex M		Annex G				
	In place	Trained in EQA	In place	Trained in EQA	In place	Trained in EQA	In place	Trained in EQA	In place	Trained in EQA	received		expected	received	expected	year	expected		
Bihar	Y	Y	Y	Y	2	2	38	25	161	138	Y	18	28	13	38	0	1	5	
J&K	Y	Y	Y	Y	3	2	8	5	24	24	Y	18	24	231	261	0	1	Nil	
JH	Y	Y	Y	Y	Nil	N/A	20	19	58	55	Y *	54	66	54	66	1	1	8	
KAR	Y	Y	Y	Y	4	3	28	28	117	115	Y	84	84	84	84	1	1	11	
MH	Y	Y	Y	Y	3	3	48	48	209	209	Y	140	144	139	144	1	1	11	
Orissa	Y	Y	Y	Y	2	2	30	No	96	90	Y	49	114	31	31	0	1	5	
Pondy	Y	Y	Y	Y	4	4	1	1	4	4	Y	12	12	60	60	0	1	3	
RJ	Y	Y	Y	N	3	2	31	31	139	131	Y*	31	32	32	32	1	1	2	
WB	Y	Y	Y	new	3	2	19	14	183	179	Y*	57	57	57	57	1	1	4	

Annexure III-NTI

Annexure IV-TRC

EQA Status in the Country at the end of 2nd quarter 2007

States	HRD status at IRL/STDC						EQA Training status				Panel test slides preparation	Reporting - district to IRL						Date
	STDC Director		Microbiologist		LTs at IRL/STDC		DTOs		STLS			Annex E		Annex M		Annex F		
	In place	Trained in EQA	In place		No. in place	Trained in EQA	No. in place	Trained in EQA	No. in place	Trained in EQA		Yes/No	No. recd last qtr	No. expected	No. recd last qtr	No. expected	No. recd this year	
AP	YES	YES	YES	YES	3+1	4	23/24	23	170	168	YES	72	72	72	72	-	-	6& 7/04/15-16/06/07 23 25/06/07
Chhattisgarh	NO	NO	YES	NO	No. in place	NO	16	8	61	59	NO	12	16	5	16	-	-	-
Gujarat	YES	YES	YES	YES	4	4	28	27	125	125	Yes	87	87	87	87	-	-	12-13/4/07 8/5/07 9- 10/5/07 7/6/07 8- 9/6/07
Goa	NO	NO	YES	YES	1	NO	2	2	3	3	NO	6	6	6	6	-	-	05-12/09/07
Kerala	YES	YES	YES	YES	2	2	14	9	67	67	YES	39	42	39	42	-	-	24/-25/07
Punjab	YES	YES	YES	YES	2	2	21	17	56	47	YES	54	54	54	54	-	-	6- 7/6/07

Sikkim	YES	YES	YES	YES	4	4	4	4	5	5	YES	12	12	12	12	-	-	22/6/07
Tamil Nadu	YES	YES	YES	YES	4	1	26	26	141	141	NO	30	30	30	30	1	30	
UP-Agra	No*	Yes	No	-	2**	2	32	22***	154	148	No	41	105	45	105	-	-	21/8/07
UP-Lucknow	YES	YES	YES	NO	2	1	24	20	179	179	Yes	41	105	29	105	1	35	
Total					21	20	190	158	961	930		394	529	379	529			