MONITORING OF RNTCP

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An existing comprehensive system of monitoring of RNTCP is inbuilt into the programme. The system is based on indicators that have international acceptance. There is also periodic evaluation that includes not only the assessment of the health facilities and the functionaries but also the outreach of services by direct interaction with the patients. Besides, there is also periodic review by International agencies like WHO. A robust monitoring system has perhaps been one of the major contributory factors to the success of the programme that has been acclaimed world-wide.

I. INTRODUCTION

National TB Control Programme (NTP) was initiated in 1962 as a decentralized programme. A detailed programme evaluation of the NTP was undertaken in 1992. It was found that the programme suffered because of over-reliance on X-ray for diagnosis, poor record keeping and accountability, erratic drug supply and multiple drug regimens leading to low success rates(1).

The review called for a significant overhaul of the NTP and the adoption of a new approach to TB control. This new approach is called the Revised National Tuberculosis Control Programme (RNTCP). RNTCP is an application in India of the WHO-recommended Directly Observed Treatment, Short Course (DOTS) strategy to control TB with the objective of curing at least 85% of new sputum positive TB patients and detecting at least 70% of such patients. The strategy has proven successful in other countries and now in India too. It takes care of the shortfalls of the earlier programme.

The 5 essential components of DOTS strategy are:

1. Political commitment
2. Sputum Microscopy.
3. Directly observed therapy
4. Uninterrupted supply of drugs
5. Accountability

Starting in October 1993, the RNTCP was implemented in a population of 2.35 million in 5 sites in different states (Delhi, Kerala, West Bengal, Maharashtra, and Gujarat). The programme was expanded to a population of 13.85 million in 1995 and 20 million in 1996(2).

Rapid scale-up began in late 1998, when another 100 million population was covered under RNTCP. In the past years RNTCP has been expanding rapidly and by now covering nearly 50% of the population in the country(2).

The present paper reviews the system of monitoring the RNTCP at various levels of its operation, namely Centre, State, District and Subdistrict levels respectively. It presents the indicators used for monitoring, the coordinating mechanisms in place and the ongoing review of effectiveness.

II. THE SALIENT FEATURES OF MONITORING

Learning from the past experience, Monitoring and Supervision were incorporated as in-built components of RNTCP in India. Now there is an effective recording and reporting procedure that flows from the most peripheral DOT provider to the central level. The follow up and outcome evaluation of patients is ensured by health workers.

Monitoring in RNTCP starts even before the implementation of programme in a district. Stringent criteria have been laid for districts preparing to implement RNTCP. The staff has to be trained and infrastructure upgraded to facilitate the necessary activities and to ensure adequate outreach of the services. An appraisal team visits the concerned district and verifies the preparedness before allowing the district to start service delivery. This also ensures that quality of services is maintained after the implementation of the programme.

Once the district starts implementing the programme, RNTCP ensures Systematic Monitoring, Supervision, and Accountability at every level. The salient features of this monitoring system are:

* There is a system of verifiable accountability at every level
* Each level must do its part to ensure cure of the patient and to break the chain of transmission.

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III. THE MONITORING PROCESS

At the most peripheral level provision of Directly Observed Treatment is self-monitored by the DOT provider. He enters each and every dose taken by the patient in the treatment card and ensures that the patient takes all the medicines regularly and completes the treatment. The Health Unit in which the patient is registered also monitors the treatment of the patient.

The RNTCP creates a sub-district level (TU) for the exclusive purpose of supervision and monitoring of TB control activities. To decentralise monitoring, there is a special cadre of staff at sub district level called the Senior Treatment Supervisor (STS) and Senior TB Lab Supervisor (STLS) for a population of 5 lakh. Further, one of the MOs stationed at the health facility, which has an STS and STLS, is designated as the Medical Officer - TB Control, (MO-TC) who is also responsible for monitoring the programme. The functions assigned to these staff for monitoring purpose are:

a) Senior Treatment Supervisor (STS) (3)

(i) The STS maintains the TB Register, incorporating required information in respect of all cases diagnosed in the sub-district.

(ii) Assists MO-TC in preparation of Quarterly Reports on case detection, sputum conversion and treatment outcome, and on health services implementing TB activities, and send them to the DTO.

(iii) Supervises each PHC, CHC and hospital in the area at least once every month, on a systematic schedule.

(iv) Ensures that patients are correctly classified; appropriate treatment indicated, provided and taken; laboratory tests carried out and treatment outcome indicated appropriately at the time of discharge. This is done by checking Treatment Cards, comparing the TB Register and the Laboratory Register, by visiting the field and comparing findings with diaries of field workers, particularly in relation to retrieval of defaulters, by discussing with staff and by random patient interviews. Any discrepancies found during checking should be brought to the notice of MO-TC/DTO.

(v) Checks that passive case finding through systematic smear examination in patients presenting with productive cough for 3 weeks or more is carried out.

(vi) Randomly checks on patients to ensure that treatment is carried out according to guidelines.

(vii) Supposed to maintain a regular supply of drugs and other logistics and ensures their uninterrupted availability in all designated centres in the sub-district.

(viii) STS is also supposed to establish liaison with private practitioners and NGOs who provide TB services to promote compliance with national norms, facilitate referral and ensure registration and notification.

b) Senior TB Laboratory Supervisor (STLS) (3)

(i) He is responsible for maintaining the quality of sputum microscopy and smooth functioning of laboratory services.

(ii) Supervises all microscopy centres at least once a month, and performs quality control of slides as per the Laboratory Manual, registering the number of slides checked and the proportion of discordance for positive and negative.

(iii) Checks the record keeping (Laboratory Register) and compare the workload for case finding with the general OPD attendance of symptomatic patients in the health facilities.

(iv) STLS is entrusted to ensure proper storage and transport of sputum specimens, safety of laboratory staff and maintenance of microscopes.

(v) To collaborate with the laboratory of the DTC in smear examination and record keeping to maintain quality control.

c) Medical Officer (Tuberculosis Control) - (MO-TCX3)

In addition to the duties of a Medical Officer involved in service delivery under the Programme the MO-TC has the following responsibilities concerned with the monitoring of the programme:

(i) He is directly responsible for supervision of the STS and STLS. He is supposed to pay regular visits to the field and help STS in retrieval of defaulters. He cross checks the results of field visits recorded by STS/STLS in their diaries and Cards/Registers.

(ii) Ensure that MOs of neighbouring peripheral centres follow the RNTCP Guidelines for diagnosis, treatment, recording and reporting.

(iii) Oversees requisition, receipt and monitoring of supplies.

The overall supervision of the TUs is done by the DTO and of all districts by the State TB Officer. The STO is assisted by the staff of State TB Demonstration and Training Centre (where established) and his staff at the STCS (2nd MO) in monitoring and supervision of RNTCP activities.
To ensure adequate uninterrupted monitoring activities, Central support is provided to the States for appointment of full time STS and STLS at TUs on contractual basis and 2nd MO at STCS. 

The districts send comprehensive quarterly reports to the STCS and CTD which includes report on Case finding, Sputum conversion, Programme management & Logistics and Treatment Outcome. For ongoing evaluation of technical performance, appropriate indicators are used.

Monitoring of RNTCP is being further strengthened by use of Electronic connectivity. Many districts and States are sending their performance report via e-mail. A software package is being developed at the central level that would enable Districts and States to enter their financial and technical performance reports online/ offline and submit it to CTD. This would ensure that reports would be submitted at much faster pace and feedback suggesting corrective methods, if any, would also be received in time.

IV. PROGRAMME INDICATORS(4):

a) Annual case detection rate (the total no of TB cases detected from per lakh population per year) Expected > 135 cases/lakh population
b) Annual new sputum positive case detection rate (this is an indicator for the new infectious cases i.e. new sputum positive cases detected per lakh population per year.) Expected > 50 cases/lakh population
c) New Sputum Positive Conversion Rate (the percentage of new sputum positive cases that were found smear negative at the end of Intensive Phase of treatment) Expected >90%
d) Cure rate (patients who were smear positive initially and had negative smear results on at least two occasions, one of which was at the end of treatment) Expected >85% for new smear positive cases.
e) Default rate (includes patient who at any time after registration have not taken medicine for 2 months or more) Expected <5%
f) Death rate (includes death of patients on treatment of TB that may be because of any cause) Expected <5%

The reports are analysed against these indicators and feedback is provided to the individual districts both from the State and Central level. Adequacy of trained manpower and necessary infrastructure including equipment in working condition is regularly verified from these reports. Most of the States are now holding regular quarterly review meetings where the performance of the individual districts is discussed and methods to improve the performance are suggested.

V. PERFORMANCE LEVELS: as monitored:

The performance against these indicators has been good, as per reports for 2nd Quarter 2002. The Annualised case detection rate is 137/lakh and detection of new sputum positives is 56/lakh (66% of the expected case load as against a target of 70% detection rate of new sputum positives) and this is while maintaining a good Success rate of 84% in new sputum positives.

VI. CONCLUSIONS

To sum up there is an existing comprehensive system of monitoring of RNTCP that is inbuilt into the programme. The system is based on indicators that have international acceptance. There is also periodic evaluation that includes not only evaluation of the health facilities and the functionaries but assesses the outreach of services by direct interaction with the patients. Besides, there is also periodic review by International agencies like WHO. A robust monitoring system has perhaps been one of the major contributors to the success of the programme that has been acclaimed world-wide.

In the words of Dr J W Lee, Director, STB, Communicable Diseases Department 12th February 2002, ....remarkable progress made in DOTS expansion in India, which now has the largest DOTS programme in the world, treating more people per year than any other country. I should also add that the technical excellence that your programme has maintained from its inception has been a model for the world.

REFERENCES

5. Letter from Dr J W Lee, dated 12th February 2002 (personal communication).