Executive summary

THE MAHARAJA SHIVAJI RAO UNIVERSIRY BARODA

Abstract

A CRITICAL REVIEW OF NATIONAL TUBERCULOSIS PROGRAMME, INDIA

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Guide
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Background

India has the highest number of tuberculosis cases among the top ten country of the world. Unless urgent action is taken, more then 15 millions people – more then 4 millions of them in India alone – will die from tuberculosis in the next decade. This is colossal waste of human life as tuberculosis can be cured in nearly all these cases.

National Tuberculosis Programme (NTP) of India was established in 1962 and provided a system of 446 district tuberculosis centers, 330 TB clinics, and more then 47000 hospital beds – for tuberculosis control throughout the country. (NTI 1986)

A Revised National Tuberculosis Control Programme (RNTCP), based on WHO strategy was implemented in 1993. The RNTCP was pilot tested in population of 2.35 million in 13 states of India. The rural model of RNTCP was first implemented at Mehsana district of Gujarat state. In this area the diagnostic practice improved, and cure rate was also achieved more then double as compared to non-RNTCP area. More then five years have been completed since the implementation of new RNTCP strategy at Mehsana. Therefore, this study aimed to review the WHO strategy of TB control in pilot project area of district Mehsana

Executive summary

AIM & Objectives of study:

To critically review the tuberculosis control programme of India with reference to revised WHO strategy of tuberculosis control in pilot project area of Mehsana district (Gujarat state)

The objectives of study were

(1) To study the Revised National Tuberculosis Control Programme implementation in pilot project area of Mehsana as regards to its various activities e.g. training, case finding, treatment supervision, commodity supplies, prevention and health education.

(2) To study the change in knowledge, attitude, and practices of target population and those who are in-charge of the target population viz. health care providers.

(3) To study the change in morbidity and mortality expected as a result of RNTCP implementation in the pilot project area of Mehsana.

Method & Materials:

This was multi-stage, cross sectional, qualitative cum quantitative study. There was no base line study done at project area of Mehsana in the past. So Anand district was selected as a control considering its rural development, availabilities of infra health structure, transport and education facilities, and availabilities of primary health care services with TB control activities.

4 (10%) PHCs were selected from each district on random selection basis. Survey team listed the entire households residing in the village for continuous period of one-year in 1998. Eligible beneficiaries were listed out from the village households and interviewed with semi-structured pre-tested questionnaire by a team of TB supervisor.

238 chest symptomatic patients, 231 TB patients, 673 deaths, 39 medical personnel, and 118 Para medical personnel were interviewed in the present study.

212-treatment card of TB patients treated at the selected PHC areas with quarterly report of case detection, conversion report, and treatment

outcome reports of the districts for the year of 1998 were also studied. The formats for data entry and questionnaire form was used in the local language

Analysis:

The EPI-INFO-6 b software package developed by CDC USA, were used in personal computer. The data enter in EPI-INFO.REC file. The analysis, statistical test were done though EPI-ENFO program.

Result Tables

Various tables have been prepared on the basis of the results available from the computer analysis. The summary tables of indicators calculated were as follows:

(A) Process indicator:

Sr. No.	Indicator	Value Expected As per G.O.I	Calculated value	
			Anand	Mehsana
1	**Training-** (a) Proportion of Para-medical health personnel trained or retrained for TB control programme in previous 3 years	100%	23.1%	89.3%
	(b) Proportion of health workers responsible for BCG vaccination, who were trained or retrained in BCG vaccination technique in previous three years.	100%	75.8%	66.7%
	(c) Proportion of medical personnel, who were trained or retrained for TB control programme in previous three years.	100%	16%	85.7%
2	**Supervision** (a) Proportion of HW, who report that one or more visit by their immediate supervisor (MO) in previous 3 months for TB control activities.	100%	26.9%	72.7%
	(b) Proportion of medical officer, report that one or more supervisory visit of DTO in previous one year for TB control programme.	100%	24%	64.3%

Process indicator – continue

Sr. No.	Indicator	Value Expected As per G.O.I	Calculated value	
			Anand	Mehsana
3	**Health information systems** (a) Proportion of health institution submitted monthly monitoring reports during last one year	100%	100%	100%
	(b) Proportion of medical officer, who report that they received feedback of monthly monitoring report with in three months of their submission.	100%	7%	92.9%
4	**Drugs-supply** (a) Proportion of medical officer, who report that the supply of anti-TB drugs was in sufficient quantities during last one-year period.	100%	80%	100%
5	**Health-education** (a) Proportion of TB patients, who report that they know govt. Facilities located nearer to their house (PHC), where the diagnosis and treatment of TB available free of cost.	N.A.	7.1%	44.0%
	(b) Proportion of chest symptomatic patients, who report that they know govt. Facilities located nearer to their house (PHC), where the diagnosis and treatment of TB available free of cost.	N.A.	13.6%	51.0%
	(c) Proportion of health worker who know correctly the nearest govt. health facilities where the diagnosis of TB is available.	N.A.	42.3%	90.9%
	(d) Proportion of health worker who know correctly the nearest govt. health facilities where the treatment of TB is available.	N.A.	28.8%	90.9%
	(e) Proportion of medical health care provider (MO), who received the TB training, report correctly about national TB regimen	N.A.	50%	58.3%
	(f) Proportion of medical health care provider (MO), who did not received the TB training, report correctly about national TB regimen	N.A.	14.3%	50%

(B) Out-come indicator

Sr. No.	Indicator	Value Expected As per G.O.I	Calculated value	
			Anand	Mehsana
1	**Case finding activities** (a) Proportion of chest symptomatic suggestive of TB, seeking medical advice for early detection out of total symptomatic in community.	N.A.	76.8% (96/125)	83.5% (86/103)
	(b) Proportion of chest symptomatic suggestive of TB seeking medical advice from govt. facilities for early detection, out of total who seek the medical advice.	N.A.	28.1% (27/96)	20.9% (18/86)
	(c) Proportion of chest symptomatic, seeking medical advice from health care provider, who reports that, his health care provider advice for sputum AFB examination.	N.A.	20.8% (20/96)	29.1% (25/86)
	(d) Proportion of chest symptomatic, seeking medical advice from health care provider, who reports that, his health care provider advice for X-ray chest after the sputum AFB examination.	N.A.	2.1% (2/96)	2.3% (2/86)
	(e) Proportion of TB patients, who report that they had first visited to govt. facilities for their symptoms.	N.A.	25% (35/140)	28.6% (26/91)
	(f) Proportion of smear AFB positive TB patient out of total chest symptomatic patient in community	N.A.	10.9% (12/110)	9.2% (9/98)
2	**Treatment activities** (a) Proportion of TB patients, who report that they received TB treatment from Govt. facilities out of total TB patients in community.	N.A.	38.8% (54/140)	44.0% (40/91)
	(b) Proportion of TB patients, who report that they received TB treatment from Govt. facilities and prescribed the National TB drug regimen.	100%	85.2% (46/54)	90% (36/40)

Out-come indicator continue

Sr. No.	Indicator	Value Expected As per G.O.I	Calculated value	
			Anand	Mehsana
	Treatment activities (c) Proportion of TB patients, who report that they received RNTCP drugs regimen from govt. facilities, in presence of DOTS worker.	> 90%	N.A.	95.7% (22/23)
3	**Treatment outcome** (a) Sputum smear conversion rate at the end of three months in new smear AFB positive TB patients treated at govt. facilities	> 85%	65.5% (19/29)	79.1% (34/43)
	(b) Cure rate in new smear AFB positive TB patients treated at govt. facilities.	> 85%	44.8% (13/29)	74.5% (32/43)
	(c) Treatment completion rate in new smear AFB positive TB patients treated at govt. facilities	< 10 %	10.3% (3/29)	0.0% (0/43)
	(d) Default rate in new smear AFB positive TB patients treated at govt. facilities	< 10%	44.8% (13/29)	4.6% (2/43)
	(e) Failure rate in new smear AFB positive TB patients treated at govt. facilities	< 4%	-	9.3% (4/43)
	(f) Death rate in new smear AFB positive TB patients treated at govt. facilities	< 4%	-	4.6% (2/43)
	(g) Migration/ Transfer out rate in new smear AFB positive TB patients treated at govt. facilities.	<1%	-	7.0% (3/43)
4	**Mortality** (a) Crude Death Rate /Thousand/ year	-	11.33	8.7
	(b) TB mortality/ lakh/year	-	188	76
5	**Prevention & prophylaxis** (a) Proportion of children age 1-2 year of age BCG vaccinated as per their mother in community.	-	724%	56.7%
	(b) Proportion of TB patient disposed their sputum hygienically.	-	2.9%	5.5%

Conclusion: There is an increase in awareness regarding diagnosis and treatment facility and reduction of stigma in community and health care provider among in RNTCP area as compared to control area. Tuberculosis mortality and morbidity in RNTCP area is less as compared to control area. There is a significant improvement in training, case finding, treatment supervision, commodity supply, as well records keeping in RNTCP area as compared to control area.

Recommendation: DOTS are the best treatment strategy available today, but it does not and cannot remain static. DOTS has evolved through decades of research – much of it done in India – and it must continue to evolve as it adopts to local situations and emerging scientific data.

Therefore the recommendations of our study:

(1) Further strengthen the awareness among community to avail the help from health care personnel for their morbidity.

(2) Training for private health care provider and NGO stressing their role and contribution in RNTCP.

(3) A system of reference of TB patients between private, NGO, and Govt. health care need to need to be established.

(4) Strictly adhere the algorithm guidelines envisaged in RNTCP for diagnosis and treatment by all health care providers.

(5) Regular re-training programme for all health care providers at all level.

(6) Supervision by DTO, MO (TC), STS, MPHS to ensure that they adhere to the guidelines.

(7) Cross checking of received report for their correctness and feedback with immediate follow-up action.

(8) RNTCP should be implemented in entire country.

(9) Government doctor should not indulge in to private prescribing of medicine for TB patients when they are available free of cost under RNTCP.

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