Chapter 7
Conclusion And Recommendation

The prevalence of chest symptomatic patient in community-based survey was 0.57% and 0.55% in RNTCP and Non RNTCP area. The age specific prevalence was increased with age. The sputum positivity rate among the chest TB symptomatic patient increases from 4.5% to 10% with 3 samples sputum examination. The positivity rate of chest symptomatic for sputum AFB was 10% on an average in both the districts.

96% of chest symptomatic patients were aware about the cough as a symptom of TB.

88.2% of chest symptomatic patients confirmed the health workers visit to their home during last one month, however only 2.2% had reported that the health worker visited for TB work.

There was a significant change in awareness about availability of diagnosis and treatment services at govt. health institution in RNTCP area as compare to non-RNTCP area.

Among the chest symptomatic patients awareness about the role of health worker in TB control was 21.6% in non-RNTCP area as compared to 37.5% in RNTCP area. The reference of chest symptomatic by health worker during his field visit was less than 1.2% in both the area. In fact health worker should have made a reference of chest symptomatic during his field visit to reduce the chain of transmission of TB in community.

The private health care provider was first contacted by 62.8% chest symptomatic in community. While less than 30% chest symptomatic had made first contact to govt. health care institution in RNTCP area. The similar observation was made with non-RNTCP area also.

Similarly more than 60% TB patients reported that they had first visited private health care provider. There was shift of TB patient (after diagnosis) for treatment towards the Govt. and NGO hospital from private health care provider in both the districts. The shift of patient was more towards the NGO in non-RNTCP area and more towards the GOVT.

institution in RNTCP area. The deference in choice of health care provider in RNTCP and non-RNTCP area was not significant.

On an average 1/3rd of chest symptomatic patients were examined for sputum smear AFB examination. There was an excessive use of radiological investigation (e.g. X-ray chest) in both the districts.

More than 85% of TB patient were getting the drug regimen recommended by National TB Control Programme at Govt. institution. While private health care provider, where as NGOs were not followed the recommended drugs regimen.

Only 57.5% TB patients were put on RNTCP DOTs regimen in RNTCP area and rest 32.5% were put on SSC (unsupervised) regimen. It was because such patients were not evaluated for treatment out come purpose in RNTCP reports.

33.1% patients received DOTs through health workers, while rest 27.9% patients by pharmacist and 44% patients by community volunteer received DOTs in Mehsana.

The major side effects of drugs were 4% with RNTCP regimen as compare to 4.3% with SCC regimen. While the major side effects of drugs were highest (8.3%) with other regimen, which is not recommended by GOI.

Sputum follow-up examination after completion of intensive phase was reported in time among 55.1% patients against the norms of 90%.

Conversion rate in new smear positive TB patient was 92.1% as per quarterly reports submitted to states while on analysis of randomly selected treatment cards – it was calculated to be 79.1%. Similarly cure rate of new smear positive TB patient was 84% as per reports submitted to the state government while study of selected cards shown 74.5% Therefore there was a discrepancy of 9.5% among the reported and calculated cure rate.

Private health care provider did not observe the drug default retrieval. 5% TB patient in Anand and 45.8% TB patient in Mehsana

reported the visit of Govt. health personnel for default retrieval. The senior treatment supervisor or TB supervisor was the main para-medical health personnel, who took the default retrieval visit to patient. The involvement of health worker and medical officer was reported in Mehsana, while it was not there in Anand.

13% TB patients at Anand (non-RNTCP area) and 7.5% TB patients in Mehsana (RNTCP area), who were treated at govt. institution made an expenditure on account of diagnostic test, drug purchase and, transport. The mean expenditure was Rs. 524.57 per month in Anand and Rs. 266.67 per month in Mehsana. However GOI recommended free diagnosis and treatment at govt. institutions to all TB patients.

Observed crude death rate was 11.33/thousand/year in non-RNTCP area and 8.7/ thousand /year in RNTCP area. The proportion of total death attributed to TB was 16.6% and 8.6% in non-RNTCP area and RNTCP area respectively. The TB disease specific death rate was calculated 188/lakh/year and 76/lakh/year in non-RNTCP area and RNTCP area respectively. The age specific TB mortality was highest in productive age group (25-44). It was almost double in non-RNTCP area as compared to RNTCP area. So there was significant reduction due to TB mortality in RNTCP area.

There was positive shift of priority among the health care staff in Govt. institution in RNTCP area as compared to non-RNTCP area. The observed difference could be due to vigorous training and intensified supervision by district and state health authority.

More then ¾ of health care personnel were aware about the methods of diagnosis of tuberculosis. However, the correct knowledge regarding place of diagnosis was 42.5% in non-RNTCP area as compared to 90.9% in RNTCP area. The reference of chest symptomatic patients to primary health centre was 88.2% and 35.3% by health worker in RNTCP and non-RNTCP area respectively.

The correct knowledge of RNTCP drugs regimen among the medical officers was 50% in non-RNTCP area and 58.2% in RNTCP area. However, medical officers were not aware about SCC and SR regimen in both the areas.

The awareness about the existence of default TB patient among the medical officers was 40% in non-RNTCP area and 64.4% in RNTCP area. The senior treatment supervisor / TB supervisor was the main health personnel, who took defaulter action in both the area. The medical officer and health worker involvement for default retrieval were observed in RNTCP area.

There was a significant improvement in supervision by DTO, CDHO, and Sate TB officer in RNTCP area as compared to non-RNTCP area. The logistic and drugs supply in RNTCP area was regular as compared to non-RNTCP area. The maintenance of treatment cards and record keeping was excellent in RNTCP area

The more than 90% of health workers were known about the availability of BCG vaccine at their institution. While 54% health worker in Anand and 90% health worker in Mehsana knew correctly about the site and age of for vaccination. The retraining about the BCG vaccination were not done in both the areas

There was a significant change in treatment outcome indicator in RNTCP area. The cure rate was 74.5% in Mehsana as compared to 44.8% in Anand. The default rate was 4.6% in Mehsana and 44.8% in Anand.

To summarize following things were better in RNTCP area as compared to non-RNTCP area:

(1) Increased awareness regarding diagnosis and treatment facility in community and health care provider.

(2) Reduced tuberculosis mortality and morbidity

(3) Significant improvement in training, case finding, treatment supervision, commodity supply, as well records keeping

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Recommendation:

DOTS is the best treatment strategy available today, but it does not and cannot remain static. DOTS has evolved through decades of research-much of its done in India – and it must continue to evolve as it adapts to local situations and emerging scientific data. Keeping this in mind and based on our study we recommend:

(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.