

Status of Tuberculosis and its outcome in District Tuberculosis Centre II Jaipur: A retrospective record base study

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Abstract—Tuberculosis (TB) is a major public health problem in India. Its treatment is for quite long period so cases fail to take full treatment but in RNTCP with the DOT cure of the tuberculosis became easier. This present record base study was conducted with the aim to find out the status of tuberculosis and its outcomes in District Tuberculosis Centre (DTC) II Jaipur (Rajasthan) India. This study was conducted from records of DTC II Jaipur of year 2018. It was found that maximum cases were registered in fourth quarter followed by second, third and fourth. Outcome was mentioned in 94-99% of cases. Cure rate was achieved 88-90% whereas case fatality rate was observed 2-3%.

Keywords: Tuberculosis, Treatment Outcomes, Cure Rate, Case Fatality Rate, District Tuberculosis Centre (DTC).

I. INTRODUCTION

Tuberculosis is a public health problem globally. China and India account for more than half of the TB burden worldwide.¹

India has highest TB burden of world accounting for approximately 1/5th (20%) of Global T.B. burden having.² It has 1.8 million new TB cases per year with 0.8 million are new smear positive and 0.37 million people dies due to T.B. Prevalence of tuberculosis in India is 5.05%.³

As per RNTCP target⁴ – Target for Cure Rate is more than 85% and target for Failure Rate, Defaulter Rate and Relapse Rate are less than 5% for each category.

But there is very varied response from different parts of country about the targets.³⁻¹⁰ So to assess the status of treatment outcomes of tuberculosis in Jaipur (Rajasthan), this study was conducted on quarterly reports of DTC II Jaipur (Rajasthan) India.

II. METHODOLOGY

This present study was conducted on records of year 2018 of DTC II Jaipur (Rajasthan) India under department of Community Medicine of SMS Medical College, Jaipur (Rajasthan) India.

For this study Ethics permission was obtained from Institutional Ethics Committee. After that data regarding registration of tuberculosis patients with their outcomes like cured, death etc. were recorded. As reports were send quarterly where first quarter is from 1.1.18 to 31.03.18, second quarter is from 1.04.18 to 30. 06.18, third quarter is from 1.07.18 to 30.09.18 and fourth quarter is from 1.10.18 to 31.12.18.

For treatment outcomes first three quarters i.e. first quarter, second quarter and third quarters were considered whereas the fourth quarter was not considered.

Data thus collected were entered in MS Excel worksheet 2010 in the form of master chart. Quarter wise status was analysed and presented in the form of percentage and proportions.

III. RESULTS

The present study was conducted of quarterly reports of year 2018 of DTC II Jaipur. In quarter first 969 cases of tuberculosis were registered, in 2nd 1252 cases, in 3rd 1084 cases and in 4th quarter 1350 cases were registered. So maximum cases were registered in fourth quarter followed by second, third and first.(Table 1)

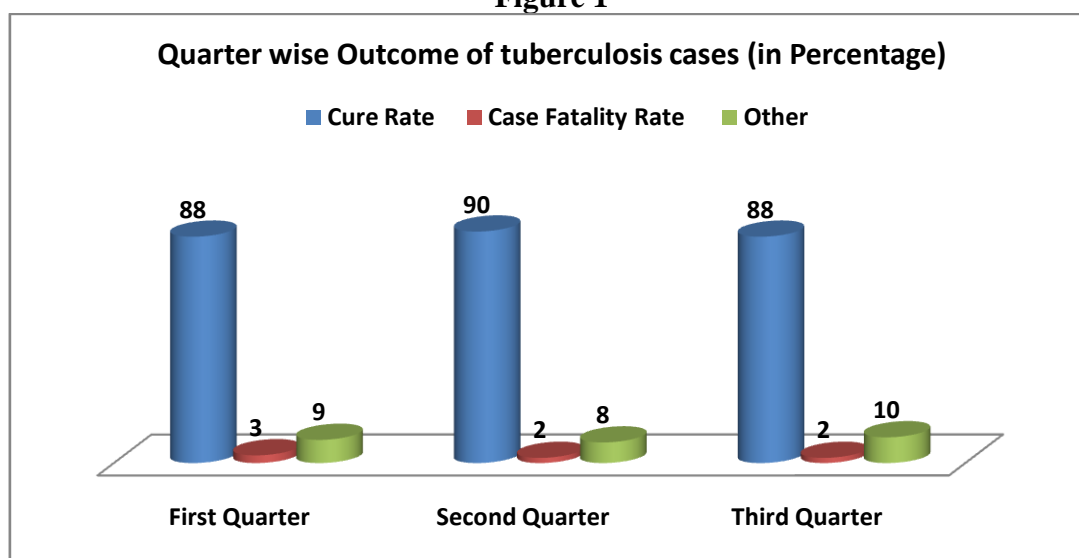
For outcome analysis, only first three quarters were considered. It was found that outcome was not mentioned in 1-6% of cases. Maximally (99%) it was mentioned of first quarter followed by second and third. (Table 1)

Table 1
TB Cases registered with their outcome at DTC II Jaipur

Quarter	TB Cases registered	Outcome Mentioned	
		Number	Percentage
First	969	959	99
Second	1252	1223	98
Third	1084	1016	94
Fourth	1350	NA	NA

When quarter wise outcomes of TB Registered cases was analysed it was found that cure rate was ranges 88% to 90% having maximum cure rate in second quarter. Case fatality rate was ranges from 2-3% with maximum death rate in first quarter. (Figure 1)

Figure 1



IV. DISCUSSION

The present study observed that maximum (1350) cases were registered in fourth quarter followed by second (1252), third (1084) and first (969). Cure rate was ranges 88% to 90% having maximum cure rate in second quarter. Case fatality rate was ranges from 2-3% with maximum death rate in first quarter.

In line of observations of present study cure rate in majority of studies it is shown very high ranging from 53.8% to 91%.^{3,6,7,10} These observations were further supported with finding of R.K. Mehra et al⁵ who reported Cure Rate 87.9%, 76.4% and 48.8% in category I, Relapse and Failure cases respectively. S. Worku et al¹¹ reported cure rate 90.1% of registered cases in their study in Ethiopia also.

As per RNTCP target⁴ – Target for Cure Rate is more than 85% which is achieved in DTC Jaipur in year 2018.

Regarding case fatality rate, RNTCP annual Status Report⁴ (4% in India and 3.6% in Rajasthan) and Vijay et al⁹ who observed 2.2% CFR in their study. Even Karanjekar et al¹² also reported CFR 5% in their study. These observations are well in resonance with observations of present study.

V. CONCLUSION

The present study concluded that the maximum cases were registered in fourth quarter followed by second, third and first. Cure rate was ranges 88% to 90% having maximum cure rate in second quarter. Case fatality rate was ranges from 2-3% with maximum death rate in first quarter.

CONFLICT OF INTEREST

None declared till now.

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