



**Short Communication**

**ISSUES RELATED TO MDR-TB: A SHORT COMMUNICATION**

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**Abstract:** Tuberculosis is an epidemic of high magnitude in India accounting for one/ fifth (20%) cases of world TB in 2010. Revised National Tuberculosis Control Programme (RNTCP) was launched by the Government of India in 1997, based on the global DOTS (Directly Observed Treatment, Short course). The programme has been successful by achieving a cure rate of more than 80% and bringing down the death rate due to the disease to less than 10%. Apart from this, 100% of the Indian population was covered by the DOTS programme by 2006. In spite of the success of programme the problems of high rates of incidence, prevalence and transmission are still staggering. Another emerging menace in India is drug resistant forms of TB. India is the highest burden country for MDR-TB (multi-drug resistant TB) with 20% of the world's MDR-TB load and an estimated annual incidence of 99,000 cases of MDR-TB. MDR-TB has thus emerged as a major public health issue despite 100% coverage and achievement of targets.

**Keywords:** MDR-TB, programme, DOTS, public health

**Issues related to MDR-TB**

Tuberculosis is an epidemic of high magnitude in India accounting for one/ fifth (20%) cases of world TB in 2010<sup>1</sup>. Revised National Tuberculosis Control Programme (RNTCP) was launched by the Government of India in 1997, based on the global DOTS (Directly Observed Treatment, Short course). The programme has been successful by achieving a cure rate of more than 80% and bringing down the death rate due to the disease to less than 10%. Apart from this, 100% of the Indian population was covered by the DOTS programme by 2006<sup>2</sup>.

In spite of the success of programme the problems of high rates of incidence, prevalence and transmission are still staggering. Another emerging menace in India is drug resistant forms of TB. India is the highest burden country for MDR-TB (multi-drug resistant TB) with 20% of the world's MDR-TB load and an estimated annual incidence of 99,000 cases of MDR-TB<sup>1,3</sup>.

MDR-TB has thus emerged as a major public health issue despite 100% coverage and achievement of targets. The fact that universal coverage ignores that in India, the vast and unorganized private sector caters to the health needs of more than half of all TB patients<sup>4</sup>. Universal coverage just refers to availability of RNTCP services throughout the country. The proportion of population not availing DOTS being mismanaged in this unorganized sector is not being considered.

In a study conducted in an urban slum of Mumbai in 2010, 106 private practitioners prescribed 63 different drug regimens and out of these only 6 of the prescriptions were found to be appropriate<sup>5</sup>. Another lacuna in diagnostic

practices is underutilization of sputum examination and over reliance on the X-ray chest and serological tests which have lower specificity and are poor diagnostics. As a consequence, misdiagnosis and delayed diagnosis of tuberculosis adds to the burden of disease. A study conducted in New Delhi showed that 88% private practitioners relied on chest radiology, and only 12% on sputum examination for diagnosis of pulmonary<sup>6</sup>. There is a need for bridging the communication gap between this private sector and RNTCP. Updation of their knowledge through workshops, continued medical education and their integration into national TB control efforts could minimize the spread of disease and emerging drug resistance.

Another issue of concern is high magnitude of MDR-TB and limited access to Directly Observed Treatment, Short-course (DOTS)-Plus initiatives. Only 1% of the MDR-TB patients are covered by DOTS-PLUS<sup>7</sup>. Majority of patients of these patients seek treatment from private practitioners who are ill-equipped to manage MDR-TB. Inappropriate and inadequate management of MDR-TB patients will further amplify the drug resistance giving rise to the resistant forms like XDR-TB (extensively drug resistant) and TDR-TB (totally drug resistant). The first cases of XDR-TB were reported in India in P. D. Hinduja National Hospital and Medical Research Centre<sup>8</sup>. In 2009, Velayati et al brought into light the first few cases of TDR-TB resistant to all first line and second line drugs in Iran<sup>9</sup>. Thus there is an urgent need to scale-up the DOTS-PLUS programme and ensure that drug resistant forms of TB be treated under the RNTCP regimes. Both public and private sectors must work hand in hand to fight the menace of resistant forms of TB.

**REFERENCE**

1. Global Tuberculosis Control. Epidemiology, Strategy and Financing. Geneva: World Health Organisation, Geneva, **2010**.
2. TB India 2009. RNTCP Status Report, **2009**.
3. The World Health Organization (WHO)/International Union Against Tuberculosis and Lung Disease (IUATLD) Global Project on Anti-tuberculosis Drug Resistance Surveillance 2002–2007. WHO/HTM/TB/2008.
4. Sudha G, Nirupa C, Rajasakthivel M, Sivasubramanian S, Sundaram V, Bhatt S, et al. Factors influencing the care-seeking behaviour of chest symptomatics: a community-based study involving rural and urban population in Tamil Nadu, South India. *Tropical Medicine & International Health*, **2003**; 8(4): 336–41.
5. Udhwadia ZF, Pinto LM, Uplekar MW. Tuberculosis management by private practitioners in Mumbai, India: has anything changed in two decades?, *PLoS One*, **2010**; 5(8): 120-23.
6. Singla N, Sharma PP, Singla R, Jain RC. Survey of knowledge, attitudes and practices for tuberculosis among general practitioners in Delhi, India. *Int J Tuberc Lung Dis*, **1998**; 2(5): 384–9.
7. Bhargava A, Pinto L, Pai M. Mismanagement of tuberculosis in India: causes, consequences, and the way forward. *Hypothesis*, **2011**; 9: 7.
8. Udhwadia ZF, Jain S, Rodriguez C, Mehta A. XDR tuberculosis in India: what's in a name? *Lancet Infect Dis*, **2007**; 7: 441–2.
9. Velayati AA, Masjedi MR, Farnia P. Emergence of new forms of totally drug resistant tuberculosis bacilli: super extensively drug-resistant tuberculosis or totally drug resistant strains in Iran. *Chest*, **2009**; 136: 420–5.