

Standards of Tuberculosis care: An Indian perspective

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ABSTRACT

Tuberculosis (TB) is a social disease with medical aspects accounting for 8.7 million new cases and 1.4 million deaths in the year 2011 worldwide. International standards for TB care (ISTC) were formulated to develop uniform guidelines for ensuring the delivery of a widely accepted level of care by all health care practitioners in managing TB patients, or those suspected to have tuberculosis. India alone has contributed 25% of the globally reported new cases of TB in 2011 and is also the leading nation in accounting for drug resistant TB (DR-TB). Thus to develop uniform standards of TB care and to engage private sector which caters to more than 70% of TB patients, the “central TB division” has developed standards of TB care in India

(STCI). These local standards have been designed after taking into account the guidelines of the World Health Organization and ISTC disease control STCI has proposed 26 standards (viz. diagnosis – 1 to 6; treatment – 7 to 11; public health – 12 to 21; social inclusion – 22 to 26) for effective prevention and control of TB. To conclude, the Indian standards of TB care have been proposed to emphasize on individual patient care and public health principles of disease control for ultimately reducing not only the suffering but also the economic losses from tuberculosis.

Key words: Tuberculosis; International standards for Tuberculosis care; India.

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Received: 14.10.2013

Accepted: 01.02.2014

Progress in Health Sciences

Vol. 4(1) 2013 pp 280-282

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INTRODUCTION

Tuberculosis (TB) is a social disease with medical aspects accounting for 8.7 million new cases and 1.4 million deaths in the year 2011 worldwide [1]. Among all diseases of infectious origin, TB has been ranked as the most important contributor to the associated morbidity and mortality globally [1]. Further, owing to the epidemiological determinants of the disease, the long duration of the desired treatment, and weak public health care delivery system, the chance of obtaining a favorable outcome in all diagnosed TB cases decreases significantly [1,2].

International standards for tuberculosis care

International standards for TB care (ISTC) were formulated to develop uniform guidelines for ensuring the delivery of a widely accepted level of care by all health care practitioners in managing TB patients [viz. sputum positive, sputum negative, extra-pulmonary, drug resistant forms of TB, TB-human immunodeficiency virus (HIV) co-infection], or those suspected to have tuberculosis. The basic principles of care for persons suffering from TB are the same worldwide: a prompt and accurate diagnosis; advocating the use of standardized treatment regimens supplemented with appropriate treatment support and supervision; monitoring the response to treatment; and carrying out of the essential public health responsibilities. Under ISTC, total 17 standards (viz. diagnosis – 1 to 6; treatment – 7 to 15; public health responsibilities – 16 & 17) have been framed for delivering fixed standard of care [2].

Need of standards of tuberculosis care in India

India alone has contributed 25% of the globally reported new cases of TB in 2011 and is also the leading nation in accounting for drug resistant TB (DR-TB) [1]. Thus to develop uniform standards of TB care and to engage private sector which caters to more than 70% of TB patients, the “central TB division” has developed standards of TB care in India (STCI) [3]. These local standards have been designed after taking into account the guidelines of world health organization and ISTC. The proposed Indian standards of TB care are not developed with an intention to replace international guidelines, but to ensure the best possible management of TB patients diagnosed in the country. These guidelines have been formulated to develop standardized cost-effective strategies required in the field of diagnostics, treatment, and public health related responsibilities [2]. In addition, it adds standards for social inclusion, which have not been addressed in the ISTC, which in the Indian context has a lot of potential scope in

reducing the magnitude of the disease and improving the quality of life of people in the long-term [2].

Standards of tuberculosis care in India

STCI has proposed 26 standards (viz. diagnosis – 1 to 6; treatment – 7 to 11; public health – 12 to 21; social inclusion – 22 to 26) for effective prevention and control of TB [4-6]. Standards for the diagnosis of TB includes six standards specifically, testing and screening of pulmonary TB (viz. symptoms suggestive of TB and high risk groups such as HIV patients / malnourished people, etc. which should be screened for TB); diagnostic technology (viz, necessity of microbiological confirmation for reaching the diagnosis of TB, utility of chest X-ray as a screening tool, banning or not recommending serological tests / tuberculin skin test / interferon gamma release assay in making a diagnosis of TB); extra-pulmonary TB (viz. obtaining appropriate specimens from the presumed sites of involvement for microscopy/culture and drug sensitivity testing (DST) / molecular test / histopathological examination); diagnosis of HIV-TB co-infected patients & DR-TB (viz, strengthening of HIV-TB intensified collaborative activities and high-risk groups for suspecting drug resistant TB); probable TB (viz. includes presumptive TB patients without microbiological confirmation (sputum smear microscopy, culture and molecular diagnosis), but with strong clinical evidence); and paediatric TB (viz. diagnosis of paediatric TB patients / probable paediatric TB patients / extra-pulmonary paediatric TB patients) [5,6].

Standards for treatment of TB incorporates five standards namely, treatment with first-line drugs (viz, treatment of new / previously treated TB patients, extension of continuation phase, drug dosages and weight bands, dosage frequency, and formulation of drugs); monitoring treatment (viz, follow-up sputum microscopic examinations, extension of intensive phase, offering DST in follow-up sputum positive cases, assessing response to treatment in extra-pulmonary TB patients / children, and long term follow-up after completion of treatment at the end of 6 months and 12 months); drug resistant TB (viz. initiation of treatment of DR-TB based on microbiological confirmation, adopting the ambulatory model of care, regimen for DR-TB cases with or without resistance to second-line anti-TB drugs detected either at the beginning or later in treatment, surgery in multi-drug resistant TB (MDR-TB) patients, treatment duration in MDR-TB, provider consultation in MDR-TB patients, ensuring treatment adherence in M/XDR TB patients, and second line DST during treatment of MDR TB); TB-

HIV and co-morbidity (viz, treatment of HIV associated TB patients, anti-retroviral therapy and cotrimoxazole prophylaxis therapy in HIV associated TB patients, and isoniazide preventive therapy in HIV patients without active TB); and treatment adherence (viz, patient-centred approach, individualized supervision and support system with counselling, and use of information communication technology to promote treatment adherence) [5,6].

Ten standards have been proposed under standards for public health for TB such as public health responsibility; maintenance of records for all TB patients; contact tracing for all household & close contacts of TB patients as per defined diagnostic standards; isoniazide prophylactic therapy; airborne infection control in health care facilities; notification of TB cases to the public health authorities by all health care providers; quality assurance systems for diagnostic tests and for anti-TB drugs; ensuring *Panchayati Raj Institutions* and elected representatives to share the public health responsibility for TB control; health education to the TB patient and their family members; and death audit of every TB patient by a competent authority [4,6].

Realizing the social aspects and stigma associated with the disease in Indian set-up, standards for social inclusion for TB have been proposed which were not there in ISTC. These include information on TB prevention and care seeking; free and quality services; respect; confidentiality and sensitivity; care and support through social welfare programs; and addressing counselling and other needs.

CONCLUSION

To conclude, the Indian standards of TB care have been proposed to emphasize on individual patient care and public health principles of disease control for ultimately reducing not only the suffering but also the economic losses from tuberculosis. The proposed standards will assist the health care providers in adopting a scientifically approved strategy in the management of all TB patients nationwide.

Conflicts of interest

There was no conflict of interest to be stated.

Funding

No sources of support provided.

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