

Reach, Treat and Cure Pediatric Tuberculosis: Raising the Voice for Children

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With an estimate of more than half a million cases and 65,000 deaths in children occurring globally each year, tuberculosis is still an important cause of morbidity and mortality in children in many countries [1]. In India, there are around 400 million children who constitute nearly one-third of the total population [2]. The extent of childhood tuberculosis in India is estimated to be around 10% of the total adult incidence [3]. It is alarming to note that drug resistance rates in children reflect adult rates [1].

Tuberculosis in children reflects ongoing community transmission. The most critical gap in control of tuberculosis is the neglect of pediatric disease. There are many challenges in addressing pediatric tuberculosis, and there exists a wide policy-practice gap. Even under optimal circumstances, the sensitivity of smear microscopy for the diagnosis of childhood tuberculosis remains low [4-6]. Cartridge-based Nucleic Acid Amplification Tests are now recommended by WHO as preferred diagnostic test in smear-negative tuberculosis, and in children [7-9]. Access to Xpert MTB/RIF testing to diagnose pediatric cases of tuberculosis has to be ensured at the earliest. Mantoux test is considered positive if the induration is 10 mm or more. It is recommended that the 10 mm cut-off may continue to be used for strengths of Purified Protein Derivative (PPD) only up to 5 TU; however, 2TU PPD RT23 is considered to be the most suitable strength. PPD available in the market should be standardized and the appropriate strength PPD should be made available. Serological tests for diagnosing tuberculosis (IgM, IgG, IgA antibodies against *Mycobacterium tuberculosis* antigens) are banned by the Government of India, but the ban may only be in paper, and has not come really into practice. Commercially available Interferon Gamma Release Assays are expensive tests, and they do not differentiate the tubercular infection from disease. Exact advantage of these tests in high burden situation is still not clear.

Children in households with any adult with pulmonary tuberculosis are at very high risk of infection. Screening of

household members for tubercular disease and latent infection is included in the RNTCP protocol, but contact screening and Isoniazid Preventive Therapy implementation under routine programmatic conditions is sub-optimal [10,11]. Regarding, Directly observed treatment strategy (DOTS), the number of tablets is too many to consume, and younger patients may have difficulty in swallowing them. Fixed dose combinations with good bioavailability should to be made available in the program and outside the program.

The Joint Monitoring Mission report states that the National vision of tuberculosis control will be best achieved with the innovative engagement of Private sector, but the Public sector is still not oriented enough to energize and own public-private partnerships. Standards of tuberculosis care in India, emphasising on evidence-based diagnosis, standard anti-tubercular regimens, ensuring treatment adherence, prevention of spread, and notification of disease need to be disseminated. Indian Academy of Pediatrics (IAP) has planned strategies to train pediatricians on tuberculosis control, and disseminate standards of tuberculosis care in India. IAP will also facilitate disease notification, provided the confidentiality of the patients is ensured. A Pediatric Tuberculosis Control Task Force need to be formulated at State level and district level.

Let us be part of the global effort to find, treat and cure the persons affected with tuberculosis, and accelerate progress towards zero tuberculosis-related deaths, infections, suffering and stigma. Let every child enjoy the right to breathe air free of *Mycobacterium tuberculosis*.

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