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Letter to Editor Open Access

Recent Changes in Tuberculosis Guidelines for Children

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Introduction

Dear Editor,

Among the estimated ~1 million cases of childhood (0-14 years) TB worldwide, about 75% occur in the 22 high burden countries only [1]. Being one of the high burden countries for TB, almost 10% of total TB cases in India is Pediatric TB. Pediatric TB has traditionally received a lower priority compared to the adult form of the disease because it is considered non-infectious, difficult to diagnose, too few in number and the wrong assumption that effective control of adult TB along with BCG by itself could effectively control childhood TB [2]. Fortunately, World Health Organization (WHO) and The Revised National Tuberculosis Control Program (RNTCP) in India have realized the importance of pediatric TB and included special considerations for the Pediatric TB [3-5]. In the wake of the recent changes in the guidelines regarding diagnosis and management of TB by the RNTCP and WHO, we would like to highlight the changes applicable especially for the pediatric population [4,5]:

Three new goals in the management of TB have been adopted, viz. a) relapse free cure; b) prevention of drug resistance and c) break chain of transmission by rendering the patient non-infectious and decreasing the pool of infection.

Definition of presumptive pediatric TB is provided which includes children with persistent fever and/or cough, loss of weight (loss of >5% body weight as compared to highest weight recorded)/no weight gain in last 3 months and or history of contact with infectious TB cases.

Diagnosis of tuberculosis based only on X-ray to be called as 'Clinically diagnosed tuberculosis'.

Classification based on drug resistance now also includes Mono-resistance (MR) and poly-drug resistance (PDR) TB apart from MDR (Multi-drug resistant) and XDR (Extensively-drug resistant) TB. MR is defined as resistance to one first-line anti-TB drug (ATD) only; while PDR refers to resistance to more than one first-line ATD, other than both INH and Rifampicin.

Use of CBNAAT (Cartridge based nucleic acid amplification test) and Line probe assay for MTB (Mycobacterium tuberculosis) complex in pulmonary specimens for diagnosis of TB DR (Drug resistant)-TB in presumptive cases.

Use of CBNAAT for the diagnosis of extrapulmonary TB (EPTB): a) as an additional test to conventional smear microscopy, culture and cytology in fine-needle aspiration cytology (FNAC) specimens; b) as an adjunctive test for tuberculous meningitis but c) not be routinely used to diagnose pleural TB [6].

Use of only daily regimen of therapy only.

Addition of Ethambutol during continuation phase in Category 1 (CAT 1) includes; thus CAT 1 now includes 2(HRZE) + 4 (HRE). Similarly, treatment in CAT 2 is 2(HRZES) + 1(HRZE) + 5 (HRE).

Rapid drug susceptibility testing (DST) of at least Rifampicin is recommended at the time of TB diagnosis. In patients with Rifampicin-resistant or MDR- TB who have not been previously treated with second-line drugs and in whom resistance to fluoroquinolones and second-line injectable agents has been excluded or is considered highly unlikely, a shorter MDR-TB regimen of 9-12 months may be used [7]

Delaminid may be added to the WHO-recommended longer regimen in children and adolescents (6-17 years) with multidrug or Rifampicin-resistant TB who are not eligible for the shorter MDR-TB regimen under close monitoring [8].

Adjunctive corticosteroids for EPTB [6]: a) TB meningitis-at least for 4 weeks in HIV negative and in HIV-positive, where other life-threatening opportunistic infections are absent; b) TB pericarditis in both HIV negative and HIV positive patients; Pleural TB- not routinely recommended.

Follow up: a) New and previously treated Drug sensitive pulmonary tuberculosis-no need to extend intensive phase (IP), sputum microscopy at end of IP and end of treatment; weight monthly and chest X-ray only if required. b) MDR-TB–sputum smear monthly at 3,4,5,6 and 7 months in intensive phase and at 3 months interval in continuation phase, extend IP by maximum 3 months total of 9 months.

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