

## **A STUDY ON TB DRUG COMPLIANCE IN CHILDREN – STEP TOWARDS MAKING THE SDGs A REALITY**

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**Background:** Pediatric TB constitute 6-10% of the total TB cases in India. The life time risk of progression to active disease is high in children. Introduction of CBNAAT in diagnosis and TB notification are landmarks for TB elimination. Adherence to TB treatment is the key intervention that improves outcome. There is paucity of studies regarding treatment compliance to Fixed Dose Combination in children. **Objectives :** To assess the compliance to Fixed Drug Combination regimen of anti tuberculous treatment and the role of Adverse Drug Reactions in determining compliance among children below 15 years **Methods:** Children below 15 years who were started on FDC regimen under RNTCP in the District TB centre & RNTCP unit in Government Medical College, Thiruvananthapuram, Kerala during the study period (April 2019 to October 2019) were included. Children were followed up till completion of treatment. Those who developed adverse reactions were identified and assessed. **Results:** There were 76 children in the study. Male: female ratio was 1:1.11. Of them 35.5% were below 5 years of age, 25% in the age group of 5-10 years and 39.5% in the age above 10 years. All children were treated by DOTS under RNTCP. Majority of cases (84.2%) did not develop any adverse drug reaction. 15.8% (n=12) had adverse drug reaction out of which vomiting was the commonest 9.2% (n=7.) Drug Induced Liver Injury was seen in two children (2.6%) and rashes in three (3.9%). Twelve children (15.8%) exceeded the treatment duration of 168 days out of which 5.3% had crossed the compliance limit of 17 days (more than 185 days). Overall compliance was 90.8% in the study. Three children (3.9%) were non-adherent without any cause and 4 stopped due to adverse drug reactions. Compliance

to treatment protocol was 95.3% in children without adverse drug reactions and 66.7% in those with adverse drug reactions and the difference was statistically significant ( $p = 0.002$ ). **Conclusion:** Our study found that the factors which affect compliance to ATT in children were non-adherence and adverse drug reactions. There was a statistically significant association between adverse reactions and compliance. Non-adherence should be eliminated as well as adverse drug reactions should be minimised through further research and innovations in this direction, in order to make the SDG a reality.