India has the highest tuberculosis (TB) burden in the world.

The private sector cares for more than half of TB patients and is often rife with inappropriate TB diagnosis and treatment.

Given the rising rates of anti-TB drug resistance, TB-directed stewardship could have a large impact in India.

INTRODUCTION

- The rate of inappropriate TB therapy was high (43.7%) in this cohort of patients admitted to a hospital in South India.
- Extrapulmonary TB was the most commonly suspected manifestation (83 patients, 52%) whereas pulmonary TB was suspected in 69 patients (44%)
- Disseminated TB was suspected in 6 patients (4%)
- Of the 158 cases of TB reviewed by the ASP, 69 (43.7%) were inappropriate
- The most common reason for inappropriateness was incorrect dosing (52% of anti-TB regimens, n=44) [Figure 2]
- Adverse drug reactions were common and happened in 26 (16%) patients
- Elevated liver function tests were a common cause of adverse drug reactions (22 patients, 84% of total adverse drug events)

OBJECTIVE

- Characterize the appropriateness of anti-TB drug use including indication for treatment, drug selection, dose and frequency following review by a novel antimicrobial stewardship program

METHODS

Study population: All inpatient admissions at Amrita Institute of Medical Sciences, a 1450 bed hospital in Kochi, Kerala, India, excluding obstetrics, psychiatry and neonatology floors

TB-Directed Antimicrobial Stewardship Program:
- Time period: 07/01/2017-06/30/2018
- Multidisciplinary, including an administrative champion, pulmonologist, internist and clinical pharmacists.
- Met twice weekly and audited all inpatients on TB therapy
- WHO TB Treatment Guidelines were used as standard of care
- Recommendations communicated via phone/email and chart
- Patients were followed until completion of regimen

Primary Endpoint:
- Appropriateness of TB therapy

Statistical Approach:
- Appropriate descriptive statistics were used

RESULTS

- During the 12-month study period, 158 patients received a course of antibiotics for TB treatment [Figure 1]  
  - Mean age was 52 years and 68% of patients included in the study were male

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  - The most common reason for inappropriateness was incorrect dosing (52% of anti-TB regimens, n=44) [Figure 2]
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CONCLUSIONS

- The rate of inappropriate TB therapy was high (43.7%) in this cohort of patients admitted to a hospital in South India.
- A TB-directed antimicrobial stewardship approach can improve appropriateness of TB therapy and can be easily replicated in countries with high TB prevalence
- Work in this space could lead to a decrease in multi-drug resistant TB consistent with global health priorities