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Knowledge on and attitude towards antibiotic prescription for acute infections and associated factors among junior doctors working at the Teaching Hospital, Jaffna

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Background and objective: Inappropriate antibiotic use results in treatment failure, disruption of microbiome, and antimicrobial resistance. Rational antibiotic prescription depends on sound knowledge and positive attitude of doctors. Aim of this study was to assess the knowledge on and attitude towards antibiotic prescription for acute infections among junior doctors at Teaching Hospital, Jaffna and associated factors.

Methods: A hospital-based descriptive cross-sectional study was conducted at Teaching Hospital Jaffna. Data was collected using interviewer-administered questionnaire from August 9, 2024 to November 30, 2024. All 71 junior doctors, defined as those within three years of registration/provisional registration with the Sri Lanka Medical Council, at the hospital during the study period were included. SPSS software (2023) was used for data analysis. Standard descriptive statistics were applied. Chi-square tests were used to assess associations between categorical variables (significance level 0.05).

Results: Response rate was 100%. Most (81.7%) worked in wards. Over half were Intern Medical Officers. Regarding knowledge, 35.2% scored above 80%, 43.7% scored 60–79%, and 21.1% below 60%. The maximum and minimum knowledge scores were 100% and 33% respectively. The means and SD of the scores for knowledge were 69% and 15.7 and for attitude 4.7 and 1.15 respectively. There were no statistically significant associations between knowledge and gender, workplace, years since graduation, place of medical education or designation. Positive attitude scores ranged from two to six, with 32.4% scoring the maximum possible positive score. Minimum score of two was scored by 4.2%. No significant association was found between attitude and gender, years after graduation, place of medical education or work place. A statistically significant association ($p=0.004$) was observed between job designation and attitude score with 44.7% of Intern Medical Officers and 11.8% of the Senior House Officers scoring six for positive attitude.

Conclusion: A notable proportion scored below 60% in knowledge though majority demonstrated moderate to high knowledge levels. Intern Medical Officers showed a significant association with positive attitude compared to the Senior House Officers. These findings emphasize the need for strict implementation of Antimicrobial Stewardship Programme and targeted training to ensure responsible antibiotic prescribing.

Keywords: junior doctors, knowledge score, attitude, antibiotic prescription, acute infections