Supplementary Table. Data analysis plan describing univariate, bivariate, and multivariate analyses conducted in the study

Type of analysis	Purpose	Variables	Statistical tests/ measures
Univariate analysis	Describe the distribution of each variable	Patient age, sex, education status, presenting ailment, number of antibiotics, diagnostic investigations, prescription comprehensiveness score, AmPAT rationality score	Descriptive statistics (mean, median, frequencies, proportions)
Bivariate analysis	Explore associations between individual predictors and irrational prescribing*	Dependent variable (category) Prescription rationality status (rational; irrational) Independent variables age group (<18 yr; >=18 yr) sex (Male; Female) education (Age Ineligible; Illiterate; Primary; Secondary; Higher secondary; Graduation & above) presenting ailment (Respiratory; Dental; Gastrointestinal; Febrile illness; Gynaecological; Dermatological; Trauma/Injury; Ophthalmological; Musculoskeletal) number of antibiotics (1;2) investigations advised (Medicines; Investigations & medicines; Investigations & follow up with reports)	Pearson's chi-square test or Fisher's exact test; *P* value; Odds ratio (OR) with 95% CI
Multivariate analysis	Identify independent predictors of irrational prescribing*, adjusting for covariates	Dependent variable Prescription rationality status (rational; irrational) Independent variables age group (Paediatric; Adult) Sex (Male; Female) education status (Age Ineligible; Illiterate; Primary; Secondary; Higher secondary; Graduation and above) presenting ailment (Respiratory; Dental; Gastrointestinal; Febrile illness; Gynaecological; Dermatological; Trauma/Injury; Ophthalmological; Musculoskeletal) number of antibiotics (1; 2) investigations advised (Medicines; Investigations and medicines; Investigations and follow up with reports)	Binary logistic regression Adjusted OR with 95% CI; *P* values

*Irrational prescribing was defined based on AmPAT scores. *P* value <0.05 was considered statistically significant.