**Statistical Tests for the Dataset**

|  |  |
| --- | --- |
| Statistical Test | Variables Involved |
| Descriptive Statistics | Age, Gender, Ward, Type of Sample, Organism, AMR Type |
| Chi-Square Test | 1. Type of Organism / Type of AMR 2. Gender / AMR Presence |
| Fisher’s Exact Test | Type of Organism /Type of AMR |
| T-Test / Mann-Whitney U Test | 1. Age (AMR-positive / AMR-negative) 2. Age (Male / Female) |
| ANOVA / Kruskal-Wallis Test | Age /Sample Types |
| Pearson / Spearman Correlation | Age groups/ AMR Resistance Frequency |
| Logistic Regression | AMR Presence (dependent) / Age, Gender, Sample Type (independent) |
| Trend Analysis (Time Series) | Frequency of Organism or AMR Type per Year (2020-2023) |
| Seasonality Analysis | Monthly distribution of infections |
| Multinomial Logistic Regression | Type of AMR (MRSA, MRSE, ESBL-EC) / Age, Gender, Sample Type |
| Poisson Regression | Number of AMR cases per year / Risk Factors (Age, Gender, Ward) |