

Multimedia Appendix 2: Equivalence Test

Two one-sided t-test is an equivalence test widely applied in bioequivalence studies [53] but also in model comparison [54]. We employed its variation for non-normal distribution, the two one-sided convolution test (TOSC), in the susceptibility equivalence test. TOSC was based on a Wilcoxon test to derive the confidence interval (CI) [55]. The null hypothesis was that resistance rates of ARTEMIS and of the reference surveillance system differed by at least an interval Δ . ARTEMIS results were deemed equivalent to the reference trends at the $\alpha=0.05$ level if the CI for the difference in resistance rates was completely contained within a region of similarity, delimited by the endpoints $-\Delta$ and $+\Delta$. We used the susceptibility results' standard deviation of different countries in EARS-Net to estimate the region of similarity. Since ARTEMIS rates came from different data samples, we extrapolated this interval as a level of acceptance of the results. We applied a similar procedure for SEARCH but instead of different countries, the standard deviation among the different regions of Switzerland (East, Mid and West) was used.

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