

Forecast probabilities - modelling literature review

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1 Error rate-bound method [1]

Aim: Determine CBPs for inhibition zone diameters. Required: MIC cut-off, desired sensitivity and specificity. Model: Classification according to this cut-off is treated as the ground truth. CBPs for inhibition zone diameters are set such that desired sensitivity and specificity are achieved for a minimal intermediate zone.

Ref. [2] presents a cost function and an algorithm for its optimisation to apply the error rate-bound method in cases with two different MIC cut-offs.

2 [3]

Motivation: the error-rate bound method

Reference

- [1]C.M. Metzler, R.M. DeHaan, Susceptibility tests of anaerobic bacteria: Statistical and clinical considerations, J. Infect. Dis. 130 (1974) 588–594.
- [2]M.N. Brunden, G.E. Zurenko, B. Kapik, Modification of the error-rate bounded classification scheme for use with two MIC break points, Diagn. Microbiol. Infect. Dis. 15 (1992) 135–140.
- [3]B.A. Craig, Modeling approach to diameter breakpoint determination, Diagn. Microbiol. Infect. Dis. 36 (2000) 193–202.