

**Department of Microbiology  
Antimicrobial Susceptibility Testing  
of *Bacillus* and *Corynebacterium* species**

**I. Principle**

CLSI has published a proposed guideline of “Methods for Antimicrobial Susceptibility Testing of Infrequently Isolated or Fastidious Bacteria” (M45-P, 1/2006). **Most of these organisms require testing by MIC (E-test) and should only be interpreted and reported after consultation with the Microbiology Director or Supervisor on Rounds.** The following guidelines may be used to initiate testing upon the request of clinicians.

**II. Specimen**

*Bacillus* species

*Corynebacterium* species

**III. Procedure**

A. Method of testing:

1. MIC (E-test)
2. Inoculum equivalent to 0.5 McFarland standard
3. Mueller-Hinton agar for *Bacillus* and Blood Mueller-Hinton agar for *Corynebacterium* species
4. Ambient air at  $35 \pm 2^\circ\text{C}$  for 24 h

B. Drugs available for testing

Refer to bench AST reference for routine panels or clinician may choose specific drugs for testing.

1. Penicillin
2. Ceftriaxone
3. Imipenem
4. Vancomycin
5. Gentamicin
6. Erythromycin
7. Ciprofloxacin
8. Trimethoprim-sulfamethoxazole

**IV. Interpretation**

Bring all testing results up on Rounds for consultation prior to releasing any results. Refer to CLSI document M45-P for breakpoints.

**V. Quality Control**

A. The following drugs are tested weekly and do not need to be tested with each patient isolate:

1. Ciprofloxacin
2. Gentamicin
3. Penicillin
4. Ceftriaxone
5. Imipenem
6. Trimethoprim-sulfamethoxazole
7. Vancomycin

- B. The following drugs require QC testing with each patient isolate using *S. aureus* ATCC 29213:
1. Erythromycin (0.25-1)

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Updates and Revisions: