

CALIFORNIA ANIMAL HEALTH & FOOD SAFETY LABORATORY (CAHFS) PART 1: CREATION OF SUSCEPTIBILITY DATA

| | | NOTES & HELPFUL TIPS |
|---------------------|------------------------------|---|
| Veterinarian | Collect sample | Follow the lab's recommendations to ensure proper sample collection |
| | Complete submission form | Provide sufficient information to ensure appropriate tests are performed (i.e., animal signalment, reason for submission, history and prior treatments) |
| | Transport to laboratory | Transport to lab using appropriate transport media and conditions to ensure target organism survival |
| Day 1 | Aerobic culture | Initial culture using correct media based on suspected organisms incubated overnight |
| Day 2 | Subculture | Subculture suspect significant organisms for isolation with overnight incubation to ensure pure growth |
| Laboratory Day 3 | Pathogen identification | CAHFS uses MALDI-TOF MALDI-TOF mass spectrometry: a rapid diagnostic test utilizing a pure growth colony to generate a protein spectrum that is compared to a library of characterized erganisms. Each bacterial species has a |
| | Broth microdilution | Known amount of identified bacteria suspended in broth |
| | Inoculation of 96-well plate | Broth is used to inoculate each well. Each well contains a different concentration of drug that would be expected to be therapeutic and achievable in the animal host. |
| | Incubation | Plates are generally incubated for 18-24 hours |
| Day 4 | MIC report generated | Report reflects MIC for bacterial isolate cultured from submitted sample |



CALIFORNIA ANIMAL HEALTH & FOOD SAFETY LABORATORY (CAHFS) PART 2: CLINICAL APPLICATION OF ANTIBIOGRAMS

