



CLINICAL AND
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STANDARDS
INSTITUTE

6th Edition

CLSI VET01™

Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals

This standard covers the current recommended methods for disk diffusion susceptibility testing and the reference methods for determining minimal inhibitory concentrations for aerobic bacteria by broth macrodilution, broth microdilution, and agar dilution for veterinary use.

A standard for global application developed through the Clinical and Laboratory Standards Institute consensus process.

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Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals

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Abstract

Antimicrobial susceptibility testing is indicated for any organism that contributes to an infectious process warranting antimicrobial chemotherapy if its susceptibility cannot be reliably predicted from knowledge of the organism's identity. Susceptibility tests are most often indicated when the causative organism is thought to belong to a species capable of exhibiting resistance to commonly used antimicrobial agents.

Various laboratory methods can be used to measure the *in vitro* susceptibility of bacteria to antimicrobial agents. Clinical and Laboratory Standards Institute VET01—*Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals* describes disk diffusion, as well as standard broth dilution (macrodilution and microdilution) and agar dilution, and it includes a series of procedures to standardize the way the tests are performed. The performance, applications, and limitations of the current CLSI-recommended methods are also described. The supplemental information (CLSI VET01S¹ tables) used with this standard represents the most current information for antimicrobial agent selection, interpretation, and CL using the procedures standardized in CLSI VET01.

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Foreword

CLSI VET01S,¹ a volume of tables, is updated along with this standard to ensure users are aware of the latest recommendations related to the methods described in CLSI VET01. Many editorial and procedural changes in this edition of CLSI VET01 resulted from decisions made at CLSI Subcommittee on Veterinary Antimicrobial Susceptibility Testing meetings held since 2018. The most important changes in CLSI VET01 are summarized below.

Overview of Changes

This standard replaces CLSI VET01-Ed5, published in 2018 (re-released in 2019). Several changes were made in this edition, including:

- **General:**
 - Nomenclature updates:
 - Replaced *Enterobacteriaceae* with Enterobacterales
 - Replaced *Staphylococcus sciuri* with *Mammaliicoccus sciuri*
 - Replaced *Staphylococcus vitulinus* with *Mammaliicoccus vitulinus*
 - Deleted “coagulase-negative staphylococci” (CoNS) throughout the document and replaced with “staphylococci other than *Staphylococcus aureus*” (SOSA) where appropriate
 - Replaced veterinary fastidious medium with Mueller-Hinton fastidious broth medium with yeast extract throughout the document. For more information, see Revisions for CLSI VET01-Ed5 (August 2019) on the CLSI website: <https://clsi.org/standards-development/document-correction-notice/>
 - Added antimicrobial susceptibility testing (AST) methods and QC information for *Campylobacter* spp.
- **Subchapter 1.1, Scope:**
 - Added reference to CLSI VET03² on standardized AST of bacterial pathogens from aquatic animals
- **Subchapter 1.2, Background:**
 - Moved paragraph previously in **Subchapter 1.2.2, Standard Dilution (Macrodilution, Microdilution, Agar Dilution)**, that also applies to disk diffusion and describes methods, media, and pathogens included in this standard vs pathogens included in CLSI VET06³ and CLSI VET04⁴
- **Subchapter 1.2.4, Antimicrobial Agents for Treatment and Control:**
 - Clarified the differences between treatment and control
- **Subchapter 1.2.6, Antimicrobial Agents for Production Use:**
 - Clarified explanation that the use of antimicrobial agents for production purposes is outside the scope of the CLSI Subcommittee on Veterinary Antimicrobial Susceptibility Testing’s work and not considered judicious use
- **Subchapter 1.4.1, Definitions:**
 - Added definition for **control//metaphylaxis** per the American Veterinary Medical Association (AVMA)
 - Added separate definitions for **interpretive category (for breakpoints)** and **interpretive category (for epidemiological cutoff values)**
 - Updated definitions for **prevention//prophylaxis** and **treatment** per the AVMA