

M07

Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically

This standard covers reference methods for determining minimal inhibitory concentrations of aerobic bacteria by broth macrodilution, broth microdilution, and agar dilution.

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

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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 standard M07—*Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically* describes standard broth dilution (macrodilution and microdilution [the microdilution method described in M07 is the same methodology outlined in ISO 20776-1¹]) and agar dilution techniques, 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 (M100² tables) used with this standard represents the most current information for drug selection, interpretation, and quality control using the procedures standardized in M07.

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Contents

Abstract.....	i
Committee Membership.....	iii
Foreword.....	xi
Summary of CLSI Processes for Establishing Breakpoints and Quality Control Ranges	xiii
CLSI Reference Methods vs Commercial Methods and CLSI vs US Food and Drug Administration Breakpoints.....	xiv
Subcommittee on Antimicrobial Susceptibility Testing Mission Statement	xv
Chapter 1: Introduction.....	1
1.1 Scope.....	1
1.2 Background.....	2
1.3 Standard Precautions.....	2
1.4 Terminology.....	2
Chapter 2: Indications for Performing Antimicrobial Susceptibility Tests.....	7
2.1 Selecting Antimicrobial Agents for Routine Testing and Reporting	8
2.2 Routine Reports	8
2.3 Antimicrobial Agent Classes	8
2.4 Selection Guidelines	12
2.5 Suggested Guidelines for Routine and Selective Testing and Reporting	13
Chapter 3: Broth and Agar Dilution Antimicrobial Susceptibility Testing Process	15
3.1 Antimicrobial Agents.....	17
3.2 Preparing Inoculum for Dilution Tests	19
3.3 Agar Dilution Procedure	20
3.4 Preparing Agar Dilution Plates	21
3.5 Broth Dilution Procedures (Macrodilution and Microdilution).....	25
3.6 Broth Macrodilution (Tube) Method	26
3.7 Broth Microdilution Method.....	27
3.8 Inoculum Suspension Colony Counts.....	30
3.9 Determining Broth Macro- or Microdilution End Points.....	31
3.10 Reporting Minimal Inhibitory Concentration Results	35
3.11 Special Considerations for Fastidious Organisms	35
3.12 Special Considerations for Detecting Resistance.....	40
3.13 Supplemental (Not Routine) Tests.....	49
3.14 Dilution Test Method Limitations	50
Chapter 4: Quality Control and Quality Assurance	53
4.1 Quality Control Purpose	53
4.2 Quality Control Responsibilities.....	54
4.3 Selecting Strains for Quality Control.....	54
4.4 Maintaining and Testing Quality Control Strains	55
4.5 Batch or Lot Quality Control	56
4.6 Minimal Inhibitory Concentration Quality Control Ranges	56
4.7 Quality Control Testing Frequency	56
4.8 Out-of-Range Results With Quality Control Strains and Corrective Action.....	58
4.9 Reporting Patient Results When Out-of-Range Quality Control Results Are Observed	61
4.10 Confirming Results When Testing Patient Isolates	62