



CLINICAL AND
LABORATORY
STANDARDS
INSTITUTE®

9th Edition

M11

Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria

This standard provides reference methods for determining minimal inhibitory concentrations of anaerobic bacteria by agar dilution and broth microdilution.

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

Clinical and Laboratory Standards Institute

Setting the standard for quality in medical laboratory testing around the world.

The Clinical and Laboratory Standards Institute (CLSI) is a not-for-profit membership organization that brings together the varied perspectives and expertise of the worldwide laboratory community for the advancement of a common cause: to foster excellence in laboratory medicine by developing and implementing medical laboratory standards and guidelines that help laboratories fulfill their responsibilities with efficiency, effectiveness, and global applicability.

Consensus Process

Consensus—the substantial agreement by materially affected, competent, and interested parties—is core to the development of all CLSI documents. It does not always connote unanimous agreement but does mean that the participants in the development of a consensus document have considered and resolved all relevant objections and accept the resulting agreement.

Commenting on Documents

CLSI documents undergo periodic evaluation and modification to keep pace with advances in technologies, procedures, methods, and protocols affecting the laboratory or health care.

CLSI's consensus process depends on experts who volunteer to serve as contributing authors and/or as participants in the reviewing and commenting process. At the end of each comment period, the committee that developed the document is obligated to review all comments, respond in writing to all substantive comments, and revise the draft document as appropriate.

Comments on published CLSI documents are equally essential and may be submitted by anyone, at any time, on any document. All comments are managed according to the consensus process by a committee of experts.

Appeal Process

When it is believed that an objection has not been adequately considered and responded to, the process for appeal, documented in the *CLSI Standards Development Policies and Processes*, is followed.

All comments and responses submitted on draft and published documents are retained on file at CLSI and are available upon request.

Get Involved—Volunteer!

Do you use CLSI documents in your workplace? Do you see room for improvement? Would you like to get involved in the revision process? Or maybe you see a need to develop a new document for an emerging technology? CLSI wants to hear from you. We are always looking for volunteers. By donating your time and talents to improve the standards that affect your own work, you will play an active role in improving public health across the globe.

For additional information on committee participation or to submit comments, contact CLSI.

Clinical and Laboratory Standards Institute
950 West Valley Road, Suite 2500
Wayne, PA 19087 USA
P: +1.610.688.0100
F: +1.610.688.0700
www.clsi.org
standard@cls.org

Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria

Darcie E. Carpenter, PhD, CIC, CEM
Karen (Kitty) Anderson
Diane M. Citron, BS
JoAnn L. Dzink-Fox, PhD, MS, MT(ASCP)
Meredith Hackel, PhD
Stephen G. Jenkins, PhD, D(ABMM), F(AAM)
Cindy Knapp, MS, BS, MT(ASCP)
Laura Koeth, MT(ASCP)
Audrey N. Schuetz, MD, MPH, D(ABMM)
Hannah Wexler, PhD

Abstract

Clinical and Laboratory Standards Institute standard M11—*Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria* describes the reference standard agar dilution method (Wadsworth) and the alternative broth microdilution method. Antimicrobial resistance patterns for many anaerobic bacteria have changed significantly over the past several years, resulting in a lack of predictability for many species. Susceptibility testing of anaerobes is recommended for surveillance purposes and for specific clinical situations. The agar dilution method is well suited for surveillance testing and research. It is also the standard with which other methods are compared. The alternative method, broth microdilution, is well suited for the medical laboratory but is currently limited to testing *Bacteroides* spp. and *Parabacteroides* spp. organisms and selected antimicrobial agents. QC criteria for each procedure are also described. This standardized procedure, when used in conjunction with the M100¹ tables, includes the most current information for drug selection, interpretation, QC, and antibiogram reports. When new problems are recognized or improvements in these criteria are made, changes will be incorporated into future editions of this standard and in M100.¹

Clinical and Laboratory Standards Institute (CLSI). *Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria*. 9th ed. CLSI standard M11 (ISBN 978-1-68440-021-8 [Print]; ISBN 978-1-68440-022-5 [Electronic]). Clinical and Laboratory Standards Institute, 950 West Valley Road, Suite 2500, Wayne, Pennsylvania 19087 USA, 2018.

The Clinical and Laboratory Standards Institute consensus process, which is the mechanism for moving a document through two or more levels of review by the health care community, is an ongoing process. Users should expect revised editions of any given document. Because rapid changes in technology may affect the procedures, methods, and protocols in a standard or guideline, users should replace outdated editions with the current editions of CLSI documents. Current editions are listed in the CLSI catalog and posted on our website at www.clsi.org. If you or your organization is not a member and would like to become one, or to request a copy of the catalog, contact us at: Telephone: +1.610.688.0100; Fax: +1.610.688.0700; E-Mail: customerservice@clsi.org; Website: www.clsi.org.