

3rd Edition

M24

Susceptibility Testing of Mycobacteria, *Nocardia* spp., and Other Aerobic Actinomycetes

This standard provides protocols and related quality control parameters for antimicrobial susceptibility testing of mycobacteria, *Nocardia* spp., and other aerobic actinomycetes.

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@clsi.org

Susceptibility Testing of Mycobacteria, *Nocardia* spp., and Other Aerobic Actinomycetes

Gail L. Woods, MD Nancy L. Wengenack, PhD, D(ABMM) Grace Lin, MS Barbara A. Brown-Elliott, MS, MT(ASCP)SM Daniela Maria Cirillo, MD, PhD Patricia S. Conville, MS, MT(ASCP) Edward P. Desmond, PhD, D(ABMM) Scott B. Killian, BS Nicole M. Parrish, PhD, MHS, D(ABMM) Richard Pfeltz, PhD Elvira Richter, PhD John D. Turnidge, MD, BS, FRACP, FRCPA, FASM

Abstract

Clinical and Laboratory Standards Institute standard M24—Susceptibility Testing of Mycobacteria, Nocardia spp., and Other Aerobic Actinomycetes includes susceptibility testing procedures for Mycobacterium tuberculosis complex (MTBC), clinically significant slowly and rapidly growing mycobacterial species, Nocardia spp., and other aerobic actinomycetes. Also included in this standard are recommendations for selecting agents for first-line and second-line drug testing, organism group–specific methodologies, reporting recommendations, and organism quality control criteria. Recommendations regarding agent selection for testing mycobacteria are based primarily on published guidelines. For testing MTBC, M24 recognizes agar proportion as the reference methodology on which all other methodologies are based. In addition, this standard includes recommendations for using commercial broth susceptibility methods with shorter incubation times, which are now in widespread use for MTBC susceptibility testing, and information on molecular methods for detecting drug resistance and their integration with culture-based methods.

Clinical and Laboratory Standards Institute (CLSI). *Susceptibility Testing of Mycobacteria*, Nocardia *spp., and Other Aerobic Actinomycetes*. 3rd ed. CLSI standard M24 (ISBN 978-1-68440-025-6 [Print]; 978-1-68440-026-3 [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.

