

**Third Edition**

# Clinical Laboratory Management

**Lynne S. Garcia**, Editor-in-Chief

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Deirdre L. Church • Donald S. Karcher • Michael R. Lewis  
Andrea J. Linscott • Melinda D. Poulter • Gary W. Procop  
Alice S. Weissfeld • Donna M. Wolk





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THIRD EDITION



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**ASM  
PRESS**

Washington, DC

**WILEY**

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ASM Press, 1752 N Street, NW, Washington, DC 20036-2904, USA

*Registered Offices:*

John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, USA

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Wiley also publishes its books in a variety of electronic formats and by print-on-demand. Some content that appears in standard print versions of this book may not be available in other formats.

*Library of Congress Cataloging-in-Publication Data*

Names: Garcia, Lynne Shore, editor.

Title: Clinical laboratory management / Lynne S. Garcia, editor in chief ; editors, Timothy C. Allen, Vickie S. Baselski, Deirdre L. Church, Donald S. Karcher, Michael R. Lewis, Andrea J. Linscott, Melinda D. Poulter, Gary W. Procop, Alice S. Weissfeld, Donna M. Wolk.

Other titles: Clinical laboratory management (Garcia)

Description: Third edition. | Hoboken, NJ : Wiley ; Washington, DC : ASM Press, [2024] | Includes bibliographical references and index.

Identifiers: LCCN 2023053671 (print) | LCCN 2023053672 (ebook) | ISBN 9781683673910 (cloth) | ISBN 9781683673927 (adobe pdf) | ISBN 9781683673934 (epub)

Subjects: MESH: Laboratories, Clinical--organization & administration | Clinical Laboratory Techniques | Clinical Laboratory Services--organization & administration

Classification: LCC R860 (print) | LCC R860 (ebook) | NLM QY 23 | DDC 610.72/4--dc23/eng/20240108

LC record available at <https://lcn.loc.gov/2023053671>

LC ebook record available at <https://lcn.loc.gov/2023053672>

Cover Design: Wiley

Cover Image: © Marco VDM/Getty Images

Interior Design: Susan Brown Schmidler

Set in 10.5/12pt Minion Pro by Straive, Pondicherry, India

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# Preface

The current environment for laboratory medicine and pathology continues to undergo dramatic transformation, which is influenced by significant changes in the legislative, regulatory, reimbursement, technologic, sociologic, economic, communication, and business sectors. The practice of all aspects of medicine and allied healthcare requires new approaches and a much broader range of managerial expertise. Areas in which a laboratory director, manager, or supervisor is expected to understand and perform include fiscal and human resources, patient care testing and quality performance issues, and overall accountability to the facility administration. It is very important that individuals working within the healthcare environment learn to hear, speak, and thoroughly understand the operational language of healthcare administration. During the past few years, the fields of laboratory medicine and pathology management have seen many dramatic changes, including those related to quality assurance, communication, data storage and retrieval, point-of-care testing, test management, automation, safety and emergency preparedness (particularly in light of the COVID-19 pandemic), regulatory requirements, information confidentiality, billing and coding requirements, physical space changes, laboratory consolidation, shortage of training programs and trained personnel, competency testing, specimen handling and shipping requirements, decrease in reimbursement, demand for increased productivity, and increased need for consultation and educational initiatives for clients. Reactions to the changes that have occurred in the healthcare environment in recent years are essentially 2-fold: increased efforts to contain costs, and increased demand for appropriate and error-free medical care. Both of these have been influenced by the complex challenges related to the COVID-19 pandemic.

The purpose of this text is to provide comprehensive, practical information and guidelines for healthcare management in the 21st century for laboratory directors; managers; chief technologists; supervisors; trainees in schools of healthcare administration, medical laboratory technology, and other allied health disciplines; those training for leadership positions; and those studying for board or registry certification in management. This book is designed for those who are training to enter these fields and for those who are already actively working in clinical

pathology and clinical laboratory management. It contains a comprehensive overview of management principles and how they apply to the clinical laboratory. In-depth analysis of the financial challenges facing clinical laboratories is included, as are discussions on good business practices. There is extensive information on the impact of the regulatory environment on every aspect of clinical laboratory practice, as well as personnel management related to all relevant job classifications. Additional discussions include the changing practice of medicine, managerial leadership, the expanding field of point-of-care testing, enhanced information systems and security/confidentiality requirements, reimbursement compliance, outside marketing and expansion, clinical trials and evidence-based medicine, benchmarking, current trends in instrumentation and technology, enhanced consultation through expanded test result reports, and the future of clinical laboratories. All chapter topics have been extensively updated, particularly including elements from the COVID-19 pandemic, and a comprehensive new section has been added to cover the particular administration and personnel challenges associated with the pandemic.

The authors of these chapters are all practicing laboratorians, many of whom have had extensive “hands-on” experience in all facets of clinical laboratory practice, including both technical and managerial responsibilities. Each section is edited by experienced professionals to include comprehensive coverage, both didactic and practical, of all issues related to clinical laboratory operations.

Extensive laboratory management information is available in one resource and includes practical examples and numerous summary tables to serve as guidelines for relevant documentation. Various management tools are provided, particularly related to personnel, technical, regulatory, and financial responsibilities. This information is relevant for all job levels within the laboratory, as well as for all healthcare management and technical training courses. Each chapter follows the same format, which is designed to flow easily from one section to another. Extensive websites are included that provide additional valuable information related to each chapter.

It is important for readers to understand that there are many different laboratory settings; not every laboratory

will handle managerial responsibilities the same way, nor will every option be applicable to every situation. The key to quality and clinically relevant laboratory management approaches requires a thorough understanding of the pros and cons of each approach and how various options may or may not be relevant for one's particular laboratory size and range of expertise, client base, number and type of patients seen, personnel expertise and availability,

equipment availability, educational initiatives, and communication requirements.

The use of product or program names is not intended to endorse specific products or programs or to exclude substitute products or programs. Every effort has been made to ensure accuracy; however, ASM Press and the editors encourage you to submit to us any suggestions, comments, and information on errors found.

## Acknowledgments

As editors for the Third Edition of *Clinical Laboratory Management*, we would like to express our thanks to the educators, colleagues, and students who have helped shape our perspectives regarding the field of clinical laboratory and pathology management. As with the first two editions, the aim was to consolidate this information for the benefit of those working in healthcare and to share our knowledge with individuals currently working in laboratory management positions. However, regardless of your position in the healthcare arena, understanding the management challenges and “rules of the game” continues to be beneficial for everyone.

Our special thanks go to the authors for their outstanding contributions. These individuals have extensive work experience in the field and bring this expertise to each chapter. We appreciate the time and energy it took to produce the Third Edition, knowing that all were extremely busy coping with the administrative and personnel challenges associated with the COVID-19 pandemic along with the day-to-day operations within their laboratories.

We would like to thank members of the editorial staff of ASM Press, especially Eleanor Tupper, Melissa Junior, Megan Angelini, Lindsay Williams, Ellen Fox, and Christine Charlip; they are outstanding professionals and contributed extensive support throughout the publication process. With their help, we all managed to complete the task.

Our special thanks go to our families and colleagues for their support, guidance, and advice during this extensive project. This Third Edition was very much a collaborative effort, and we hope the material will prove beneficial to the overall healthcare community.

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## **Basic Concepts and the Current Healthcare Environment**

(SECTION EDITOR: Donald S. Karcher)

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