



COLLEGE of AMERICAN
PATHOLOGISTS
Education

Laboratory Medical Direction

Program Manual

This program manual is current as of June 2025.
Information is subject to change.

Overview

Congratulations on your desire to find out more about the CAP's Laboratory Medical Direction (LMD) Program! This manual will address your questions regarding program eligibility, design, and requirements.

The CAP created the LMD Program for pathologists with current or potential medical and operational responsibilities for one or more units of a laboratory. As a result of completing the LMD program, qualified program participants will be able to:

- Use lab data and your medical knowledge to interpret operational trends and determine their implications.
- Identify the steps, tools, and monitors required to implement a quality management program.
- Apply a risk management process to identify risk factors and develop action plans to minimize the risk.
- Utilize communication strategies to clearly express ideas and positions, manage resistance, and create an open dialogue.
- Identify and use team building skills to enable effective and efficient laboratory operations.
- Discuss compliance scenarios and ways to stay in compliance.
- Execute the tasks necessary to obtain laboratory accreditation.

Read on to learn how the LMD Program provides you with the opportunity to learn the new skills and knowledge required to provide excellent patient care!

Note: The CAP LMD Program is intended to be learning activities. Completion of this program alone does not necessarily indicate competence. The CAP does not endorse, guarantee, or warrant, and expressly disclaims, any and all liability for the job performance of physicians participating in the program.

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Program Purpose

The College of American Pathologists (CAP) is the leading organization of board-certified pathologists, serving patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine. The CAP seeks to create new and enhanced roles for the pathologist over the next generation, as well as greater recognition for pathologists as physicians actively involved on the patient care team. The LMD Program directly contributes to the College's vision of transforming the role of the pathologist as a leading health care provider in a practical, coordinated, and systematic manner.

The LMD Program focus on providing and equipping pathologists with practical skills, tools, and techniques that they can implement in their laboratories to ensure more effective and efficient laboratory operations and more effective patient care. Additional constituencies benefit from the program as well:

- **Laboratories and pathology departments/groups** – It is anticipated that some laboratories and pathology groups will directly purchase the program on behalf of an employed/contracted pathologist. Laboratories and pathology groups who do so will benefit from having increased confidence in the oversight and efficient operations of their laboratories.
- **Most importantly, the patients** – Likewise, the availability of one or more pathologists who have completed the program in the health care setting provides patients the assurance that their laboratory tests are processed with quality and accuracy.

Program Elements

The CAP designed the LMD Program for pathologists with current or potential medical and operational responsibilities for one or more units of a laboratory. Participants who will most benefit from the program include pathologists who have a minimum of three years' experience as a laboratory director or designated section head.

The LMD Program and its associated elements are specified below.

Online Curriculum

The online curriculum consists of **eight CME activities** (19.0 CME hours). This curriculum should be completed prior to attending the LMD Workshop.

Refer to the LMD Program **Core Curriculum** section of this document for information about each activity.

Live Workshop

The **LMD Workshop** is a 1.5 day educational experience (12 CME, CE hours) led by a team of expert faculty. The online activities are prerequisites to attending the workshop.

Core Curriculum

The LMD Program's core curriculum focuses on providing pathologists with the practical skills, tools, and techniques that they can implement in their laboratories to ensure more effective and efficient laboratory operations and better patient care. Further, the curriculum fulfills Program Element #2, Ongoing Education. The CAP's LMD Program curriculum is organized and summarized below by two delivery modalities: online and faculty-led.

Accreditation

The College of American Pathologists (CAP) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Technical Requirements for Online Activities

Most common operating systems are enabled to run CAP activities. The following systems support the activities:

- **Operating System:** Windows (Windows 10, Windows 11), macOS 11 (Big Sur), macOS 12 (Monterey), macOS 13 (Ventura)
- **Browser Version:** Microsoft Edge, and latest versions of Mozilla Firefox, Google Chrome, Safari
- Pop-up blockers must be turned off to complete CAP activities

Accessing Online Activities

Participants must establish a CAP web account in order to access and complete the online training. If you do not have an individual web account, go to cap.org, then select the Log In/Register button and complete and submit the requested information.

Prerequisite Online Activities

The following online activities are available at least one month prior to the Workshop. Descriptions for each online activity follow this listing. Clicking on an activity title navigates directly to the description.

1. [Successful Laboratory Leadership: Taking Action and Getting Results \(3.0 CME\)](#)
2. [Critical Communication Practices for Laboratory Leadership \(2.0 CME\)](#)
3. [Developing Successful Teams \(2.0 CME\)](#)
4. [Good Laboratory Decisions for Better Patient Care \(1.5 CME\)](#)
5. [Driving Excellence: Tools and Strategies for Managing Quality \(3.0 CME\)](#)
6. [Managing Risk to Build a Culture of Quality](#)
7. [Achieving Regulatory and Accreditation Compliance \(2.5 CME\)](#)
8. [Regulatory and Compliance Oversight](#)

Successful Laboratory Leadership: Taking Action and Getting Results

Credits: 3.0 CME

Assessment: 15 questions

This activity focuses on the many leadership roles and responsibilities of the laboratory medical director. Through situational scenarios, you will gain an understanding of how to broaden your sphere of influence for the benefit of patient care and laboratory needs, use change management techniques to support needed improvements, analyze a budget, build a business case, use strategic planning tools to make key decisions, delegate tasks, and avoid legal action related to staff behavior. Methods, tools, and related regulatory requirements are covered.

Objectives

1. Recognize opportunities to become involved in key organizational groups to ensure that laboratory and patient care needs are represented.
2. Use change management principles and techniques to implement laboratory improvements.
3. Use data to analyze the laboratory's budget and create business cases to justify laboratory needs.
4. Interpret laboratory productivity and efficiency measurements.
5. Use strategic planning tools and methodologies to make key decisions.
6. Follow organizational and legal hiring, employment, and performance assessment policies.
7. Describe how to delegate tasks.

Prerequisite Online Activities, cont'd

Critical Communication Practices for Laboratory Leadership

Credits: 2.0 CME

This activity provides a solid introduction to the basics of interpersonal communication and consists of the following critical topics: communication basics, adaptive communication strategies, dealing with interpersonal communication issues, and facilitating an open dialog within a multidisciplinary environment. Strategies for building and maintaining rapport and resolving conflicts through effective communication are reviewed, including techniques for communicating with credibility, assessing emotional intelligence, listening to others, overcoming communication barriers, disclosing errors, consulting clinical colleagues, and negotiating a solution to conversational conflicts. You will learn specific techniques that promote uplifting conversations to get to know others, ensure everyone is heard, and recognize and praise contributions.

In addition, this adaptive activity offers a unique learner experience. By answering a series of questions that determine your existing knowledge, you will be prescribed a customized pathway through the course that focuses on your individual learning needs.

Objectives

1. Identify the communication roles played by pathologists in leadership positions.
2. Select appropriate communication channels to facilitate communication.
3. Use clear, direct language to establish credibility and state your point of view.
4. Apply communication strategies to effectively collaborate, influence, and manage resistance from others.
5. Adapt your communication strategy to the needs of the audience and the situation.

Prerequisite Online Activities, cont'd

Developing Successful Teams

Credits: 2.0 CME

CC Categories: Interpersonal and Communication Skills, Medical Knowledge, Patient Care

How you develop, lead, manage, and empower your team impacts your laboratory's effectiveness and, ultimately, the patient care team's ability to accurately diagnose and treat their patients. In this activity, you will review strategies for building and developing a successful team. You will learn principles of effective team leadership and best practices for managing a team. You will also explore ways to empower your team and optimize teamwork.

In addition, this adaptive activity offers a unique learner experience. By answering a series of questions that determine your existing knowledge, you will be prescribed a customized pathway through the course that focuses on your individual learning needs.

Objectives

1. Identify how teamwork can be used to effectively achieve results.
2. Describe different types of teams.
3. Describe team leader roles and strategies.
4. Understand various methods to effectively address interpersonal issues.
5. Understand the basics of effective meeting management.

Prerequisite Online Activities, cont'd

Good Laboratory Decisions for Better Patient Care

Credits: 1.5 CME

Assessment: seven questions

In this activity, we work on the premise that the “test” is the fundamental operational unit of the laboratory and that test data provides critical information on how well the lab is performing and consequently on the quality of patient care provided. The careful analysis of this data and your medical knowledge are keys to making decisions about the scope and quality of laboratory services. Through situational scenarios, you will consider several aspects of laboratory services, including reporting results, choosing a reference lab, analyzing test utilization, responding to new test requests, and validating new tests.

Activity Objectives

1. Describe the laboratory medical director's (LMD) role in ensuring all phases of laboratory testing are properly performed.
2. Explain specimen collection, and the importance of correct patient identification as a part of the pre-analytical phase of laboratory testing.
3. Illustrate the role of a laboratory medical director as a consultant in test interpretation as a part of the post-analytical phase of laboratory testing
4. Discuss how the test results are presented and the elements of a test report.
5. Identify the criteria for selecting a reference laboratory.
6. Use relevant data to assess the value and appropriateness of laboratory testing to improve patient care and enhance laboratory services.
7. Explain how to form a test utilization committee and its functions.
8. Describe the process to review new and current laboratory tests to determine if they meet clinical needs while acknowledging laboratory resources.
9. Discuss the LMD's role in new test verification or validation studies.

Prerequisite Online Activities, cont'd

Driving Excellence: Tools and Strategies for Managing Quality

Credits: 3.0 CME

Assessment: 15 questions

Quality doesn't just happen in a laboratory. It depends on everyone's attention to it. This activity is designed to assist the laboratory medical director in the initiation of a quality management program that uses the right monitors and quality improvement tools to track laboratory performance and maintain quality standards through a series of interactive scenarios. The focus of this activity is on the laboratory medical director's role and responsibilities, and it is organized into four short self-study interactive modules. These modules provide an overview of quality management in the medical laboratory including how to build your quality plan around the 12 Quality System Essentials. In addition, you will learn techniques for the identification of errors that may occur during the testing process and suggestions for minimizing these errors.

Objectives

1. Initiate a quality management program that includes use of appropriate metrics and monitors for tracking the laboratory performance.
2. Incorporate the Quality System Essentials (QSE) into a quality plan for the laboratory.
3. Use a continuous quality improvement approach when investigating errors, incidents and complaints that may interfere with patient care.

Prerequisite Online Activities, cont'd

Managing Risk to Build a Culture of Quality

Credits: 3.0 CME

This activity focuses on identifying risks in the laboratory, reporting and managing incidents, and creating a safer laboratory environment. Additionally, the learning material will distinguish between types of risk and how to identify high-risk processes and actions to mitigate different categories of risk. Risk assessment and mitigation strategies, reporting and managing incidents, and methods to determine the root cause will be detailed. With the material in this activity, learners will learn how to move beyond managing risks and reacting to incidents to building a culture of safety and quality, which is the ideal laboratory environment. Moreover, the process of mistake-proofing laboratory operations and how to build a system where the right process is the easy process will be covered in depth.

This adaptive activity offers a unique learner experience. By answering a series of questions that determine your existing knowledge, you will be prescribed a customized pathway that focuses on your individual learning needs. Note: This activity includes the 2022 CAP accreditation checklist requirements. Please check your current CAP accreditation checklists for the most recent updates.

Objectives

1. Identify types of risks and risk factors faced by the laboratory.
2. Conduct a risk assessment for areas of your responsibility.
3. Use risk management tools to conduct prospective and retrospective risk assessments to reduce errors and risk.
4. Determine areas of the lab prone to high-risk situations.
5. Create a safe laboratory environment that is regulatory and legally compliant.
6. Report and effectively manage an incident in accordance with regulatory and legal requirements.

7. Be able to articulate the laboratory and institution(s) disaster plan and your role in the plan.

Prerequisite Online Activities, cont'd

Achieving Regulatory and Accreditation Compliance

Credits: 2.5 CME

Assessment: 10 questions

In this day-in-the-life activity, you will help mentor laboratory medical director Dr. Newbie through situational scenarios, as she faces the challenges of her first day on the job. In each situation, you will provide advice on how to proceed based on the Clinical Laboratory Improvement Amendments (CLIA) and the College of American Pathologists (CAP) Standards of Laboratory Accreditation covered. These include requirements for licensure, delegating tasks, proficiency testing, new instrument selection, clinical consultations, and workload requirements. At the end, you will be better prepared to perform (or delegate) the everyday tasks necessary for continuous compliance with federal regulations and accreditation requirements.

Objectives

1. Describe the impact of regulatory oversight on laboratory testing.
2. List the laboratory medical director responsibilities for ensuring that testing systems provide quality services in all aspects of test performance.
3. Explain the process for obtaining and maintaining a certificate of accreditation.

Prerequisite Online Activities, cont'd

Regulatory and Compliance Oversight

Credits: 2.0 CME

This activity helps you grow into a leader through fundamental knowledge and skills for overseeing efforts to achieve laboratory compliance with federal and state regulations. An overview of CLIA and other common regulations that laboratories must comply with is covered as well as managing common compliance issues, developing a compliance plan, and delegating responsibilities to qualified personnel within the laboratory.

This adaptive activity offers a unique learner experience. By answering a series of questions that determine your existing knowledge, you will be prescribed a customized pathway that focuses on your individual learning needs.

Objectives

1. Identify federal and state compliance and regulatory issues that impact the lab.
2. Establish and maintain a laboratory compliance program as specified by the Office of Inspector General.
3. Understand the various types of medical coding in the laboratory and recognize implications of incorrect coding.
4. Develop and document the delegation of responsibilities to qualified personnel and monitor their performance.

Core Curriculum, cont'd

Faculty-Led Workshop

Length: 1.5 days

Credits: 12.0 CME

The workshop includes opportunities to practice skills and strategies needed by laboratory medical directors and to receive feedback from expert faculty. The following topics are included in the Workshop:

Applying Medical Knowledge – Discuss how to monitor and improve test utilization and review the elements of a business case.

Quality Management – Discuss quality program elements, quality indicators, and what inspectors are looking for in a quality management program.

Occurrence Management – Participate in a fact-finding simulation to resolve a customer issue.

Risk Management – Learn a process for assessing risk and developing risk management strategies for continuous improvement.

Communicating Effectively – Learn key communication strategies to help you communicate laboratory services and promote a team environment.

Compliance Issues – Discuss real-life compliance-related scenarios, their consequences, and how to regain and maintain compliance.

Regulatory and Accreditation – Review accreditation terms and regulations, and discuss common deficiencies and how to respond to them.

Objectives

1. Use laboratory data and medical knowledge to interpret operational trends and determine their implications.
2. Identify the steps, tools, and monitors required to maintain and improve quality in the laboratory.
3. Apply a risk management process to identify risk factors and develop action plans to minimize the risk.

4. Utilize communication strategies to clearly express ideas, manage resistance, and create an open dialogue.
5. Identify and use team building skills to enable effective and efficient laboratory operations.
6. Identify compliance issues and ways to stay in compliance.
7. Execute the tasks necessary to obtain laboratory accreditation.

Workshop Agenda

Participants should plan on staying for the entire workshop as completion of all CME is a requirement to obtain the Certificate.

Prior to attending the workshop, participants should complete all eight online activities.

The workshop is 1.5 days in length. The agenda is provided below.

Day 1

7:00–7:30 AM	Check In and Continental Breakfast
7:30 AM–Noon	Welcome! Faculty and Participant Introductions Module 1: Introduction to LMD Responsibilities Module 2: Applying Medical Knowledge Module 3: Quality Management Module 4: Communication Skills Team Development Activity
Noon–1:00 PM	Group Lunch
1:00–5:15 PM	Team Development Activity (cont'd) Module 4: Communication Skills (cont'd) Module 5: Occurrence Management Day 1 Closing: Day 2 Agenda
5:30–6:30 PM	Networking Reception

Day 2

7:00–7:30 AM	Check In and Continental Breakfast
7:30 AM–Noon	Day 2 Opening Module 6: Risk Management Module 7: Compliance Module 8: Regulatory & Accreditation Workshop Closing and Evaluation
Noon	Boxed Lunch/Depart

Program Registration

Registration Fees

The fee includes all components of the program with no additional costs - 1.5-day workshop and online activities.

Fees exclude travel expenses (airfare, lodging, some meals, etc.). Sales tax will be assessed if applicable.

Cancellation/Refund Policy

Please contact the CAP should you need to cancel your registration for this program. We will refund your registration fee less 25% (processing fee), if you cancel one month prior to the beginning of the curriculum. No refunds will be issued within one month prior to the curriculum. No refunds will be issued for online activity cancellations received after the coursework is initiated. CAP reserves the right to cancel any CME workshop without prior notice for insufficient preregistration or for any other reason. We are not responsible for airline or hotel cancellation penalties, or any other losses incurred as a result of cancellation.

Questions?

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