



CLINICAL AND  
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INSTITUTE.

1st Edition

# C63

## Laboratory Support for Pain Management Programs

This guideline provides recommendations for medical laboratories and clinical practices that provide services for pain management.

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

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### Abstract

Clinical and Laboratory Standards Institute guideline C63—*Laboratory Support for Pain Management Programs* provides recommendations for medical laboratory toxicology-based testing services in support of the care and treatment of persons in pain management programs. This guideline discusses specimen types and collection, testing methodologies, and results reporting and interpretation. The intended users of this guideline include medical laboratory scientists and personnel, medical technologists, hospital administrators, physician office personnel, risk managers, pharmacists, and health care providers tasked with implementing pain management testing for their institutions or networks.

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## Contents

|   |     |
|---|-----|
| Abstract .....  | i   |
| Committee Membership .....  | iii |
| Foreword .....  | vii |
| Chapter 1: Introduction .....                                       | 1   |
| 1.1 Scope .....   | 1   |
| 1.2 Background .....  | 1   |
| 1.3 Standard Precautions .....                                      | 6   |
| 1.4 Terminology .....   | 6   |
| Chapter 2: Clinical Testing for Pain Management .....               | 11  |
| 2.1 Introduction to Pain Management Testing .....                   | 11  |
| 2.2 Process Flow Chart .....  | 11  |
| Chapter 3: Specimen Types .....                                     | 13  |
| 3.1 Urine .....   | 13  |
| 3.2 Serum .....   | 14  |
| 3.3 Oral Fluid (Aqueous or Mucous Components) .....                 | 14  |
| 3.4 Hair .....  | 15  |
| Chapter 4: Testing Methods .....                                    | 17  |
| 4.1 Screening Methods .....   | 17  |
| 4.2 Targeted Testing .....  | 24  |
| 4.3 Quality Assurance for Targeted Testing .....                    | 27  |
| 4.4 Validity Testing .....  | 27  |
| Chapter 5: Results Reporting and Interpretation .....               | 29  |
| 5.1 Results Reporting .....   | 29  |
| 5.2 Results Interpretation .....                                    | 31  |
| Chapter 6: Conclusion .....   | 38  |
| Chapter 7: Supplemental Information .....                           | 38  |
| References .....  | 39  |
| Appendix. Detailed Information for Drug Testing Methodologies ..... | 42  |
| The Quality Management System Approach .....                        | 60  |
| Related (LSC) Reference Materials .....                             | 61  |

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## Foreword

In the mid- to late 1990s, the health care industry recognized that many patients received inadequate pain management during hospitalization. In response, several initiatives evolved, making pain management a major focus of the health care industry and leading to the development of numerous services, clinics, and research efforts dedicated to pain management. Despite much progress in understanding acute and chronic pain mechanisms, pharmacotherapy using opiates and opioids remains the primary therapeutic intervention for patients with chronic pain. In addition, these patients often suffer from anxiety and depression, necessitating the use of anxiolytics and antidepressants.

Because pain management medications pose a risk of addiction and abuse, it is commonplace to monitor patients for compliance with therapy. Regrettably, some patients turn to illicit drugs, while others who are addicted to opioids attempt to acquire them by feigning pain, complicating this testing. To monitor patients, many facilities and providers rely on simple screening of a randomly collected urine specimen for a panel of drugs of abuse. Most often the screening method is immunoassay based and can include point-of-care devices for convenience. Unfortunately, immunoassays for urine drug testing vary considerably in specificity and sensitivity and are associated with both false-positive and false-negative results. These limitations are often poorly understood by health care providers outside the medical laboratory. Because confirmation of a positive screening result is neither practical nor mandated in the patient care setting, testing typically stops with screening. Similarly, an unexpected negative result might not receive additional scrutiny. Both situations have resulted in patients being accused of using nonprescribed drugs or not complying with the use of prescribed drugs and, in some cases, being dismissed from care. Recognizing the seriousness of these consequences, a growing number of laboratories are turning to mass spectrometry-based methods as the first line of testing and encouraging additional testing of any unexpected result, whether positive or negative. There is also growing interest in using alternate specimen types in specific situations. Thus, the needs of pain management services have changed the types of toxicology testing expected of medical laboratories, which have also encountered dramatic increases in testing requests. Laboratories have recognized the need to change testing menus and technologies, implement referral testing services, and find opportunities to interact more with providers who use their services.

This guideline provides recommendations for laboratory support of pain management clinics and services. Every effort has been made to present the state of toxicology testing for this area as it currently exists, recognizing that technological advances continued to change the testing landscape as this guideline was being written.

**NOTE:** The content of this guideline is supported by the CLSI consensus process and does not necessarily reflect the views of any single individual or organization.

### Key Words

Abused drugs, mass spectrometry, opiates, pain management, therapeutic drug monitoring, toxicology

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# Laboratory Support for Pain Management Programs

## Chapter 1: Introduction

This chapter includes:

- Guideline’s scope and applicable exclusions
- Background information pertinent to the guideline’s content
- Standard precautions information
- “Note on Terminology” that highlights particular use and/or variation in use of terms and/or definitions
- Terms and definitions used in the guideline
- Abbreviations and acronyms used in the guideline

### 1.1 Scope

This guideline provides recommendations for laboratory support for pain management clinics and services, including guidance on specimen types and collection, testing methodologies, results reporting, and interpretation. To assist in results interpretation, this guideline includes several tables listing expected metabolites for commonly encountered drugs.

The intended users of this guideline include medical laboratory scientists and personnel, hospital administrators, physician office personnel, risk managers, pharmacists, and health care providers tasked with establishing pain management testing for their institutions or networks.

This guideline does not discuss in detail the pathophysiology or biochemistry of chronic pain, nor does it include information on dosing or prescribing of pain management drugs.

### 1.2 Background

Pain is an important aspect of life that often serves as a warning of injury. Most episodes of pain are acute and time limited, and they resolve with healing. Chronic pain, on the other hand, often evolves without a clear precipitating event and persists over a prolonged time, and its treatment is challenging. Surveys estimate that  $\approx 20\%$  of individuals worldwide report chronic pain and that up to 75% of all individuals experience chronic pain at some point in their lives. Chronic pain is often comorbid with acute events and chronic diseases.<sup>1-3</sup>

Chronic pain treatment is often complex, involving psychological, social, and environmental interventions in addition to management of underlying diseases or pathology. Many patients become candidates for treatment at clinics specializing in pain management. These groups are typically multidisciplinary, involving a variety of physicians as well as other health care providers, such as nurses, pharmacists, laboratorians, nutritionists, and occupational therapists. The goal of treatment is to reduce the level of pain and improve the patient’s quality of life.

When non-narcotic analgesics and anti-inflammatories (eg, acetaminophen [paracetamol], ibuprofen, naproxen) fail, pharmacological treatment often involves the use of opiates and opioids. Muscle relaxants,