



Understanding point-of-care testing limitations for more decisive drug monitoring insights



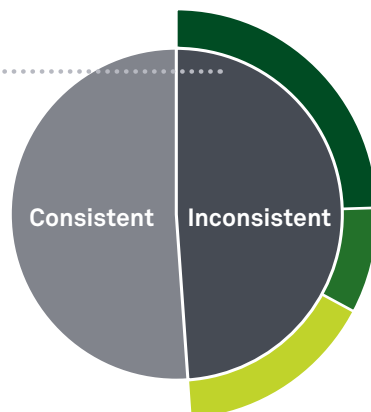
Drug overdose deaths in the US still remain 50% higher than they were 3 years ago, claiming an estimated 108,000 lives in 2022.¹

Drug monitoring is the only objective tool that can help provide clinicians with insights into multiple forms of drug misuse, including substance use disorder, dangerous drug combinations, and medication noncompliance.

Quest drug testing data of ~5 million deidentified laboratory tests show that **nearly half of patients misuse their medications²**

49%

of Quest's drug monitoring tests showed signs of misuse



No drugs are found

30% did not show the prescribed drugs or any other tested drug

Additional drugs are found

52%

combined prescribed drug(s) with at least 1 other nonprescribed or illicit drug

Different drugs are found

18%

did not show prescribed drugs, but were positive for at least 1 other nonprescribed or illicit drug

An appropriate drug monitoring protocol can help detect drug misuse early, leading to prevention, intervention, and treatment that keeps you, your patients, and your community safe.



2 types of drug testing: presumptive and definitive

Medical best practice recognizes the value of presumptive screening and definitive testing to confirm a result on the same specimen. There are pros and cons associated with each type of testing.

Drug testing is supported by guidelines

Several leading organizations and associations—including the **CDC** per the latest 2022 guidelines,³ the **American Association for Clinical Chemistry**,⁴ and the **American Society of Addiction Medicine**⁵—support the use of drug testing.

Toxicology tests can provide information not reported by the patient

The CDC's **2022 Clinical Practice Guideline for Prescribing Opioids for Pain** recommends toxicology testing to assess for prescribed medications as well as other nonprescribed, controlled substances before starting opioids and during opioid therapy.³

Periodically (at least annually) during opioid therapy, clinicians should consider the benefits and risks of toxicology testing to assess for prescribed opioids and other prescription and nonprescription controlled substances that increase risk for overdose when combined with opioids, including nonprescribed and illicit opioids and benzodiazepines.³



Presumptive testing

includes rapid point-of-care (POC) devices as well as more sensitive immunoassays. In point-of-care testing, or POCT, specimen analysis is performed outside of the clinical laboratory setting, usually in close proximity (eg, chair or bedside) to the patient. The convenience of POCT may be countered by the fact that it:

- Often has lower sensitivity and specificity, which may lead to false-negative and false-positive results
- May not be available for some commonly used and misused medications such as gabapentin and novel psychoactive substances
- Provides only preliminary results that may require definitive laboratory confirmation per FDA labeling and medical guidelines



Definitive testing

uses highly complex laboratory instruments to identify and quantify prescription medications, illicit substances, and specific parent drugs/metabolites often missed by POCT. Although results can take longer and it may be more expensive than presumptive, definitive testing provides:

- Greater sensitivity that is able to confirm or refute presumptive test results
- Reduced false-positive and false-negative results
- Ability to detect substances not detected with presumptive methods

While POCT may offer rapid and inexpensive qualitative results, it is not interchangeable with testing performed at a clinical laboratory and may be limited due to factors such as cross-reactivity, false-positives, and false-negatives.

Potential for cross-reactivity with other drugs

Presumptive tests (eg, POCT) may exhibit varying rates of cross-reactivity between different drug classes and/or devices. When cross-reactivity occurs with the POCT, it may generate a **false-positive result**.

False-negatives: what causes these types of results?

The sensitivity of a drug test impacts its ability to reliably detect the presence of a drug at or above the “cutoff,” which is the threshold at which a result is considered positive (above) or negative (below). A false-negative result occurs when a test lacks the sensitivity to detect or report the presence of drugs or metabolites.

False-negative results may occur due to:

- Low sensitivity demonstrated by the limitations of presumptive testing (eg, POCT)
- Cutoffs being set too high

POCT can limit your ability to identify drug misuse

Quest research shows that presumptive testing by POC devices may miss actual positive results due to high cutoff values⁶:

Fentanyl (74%)



Methamphetamine (16%)



Marijuana (29%)



Oxycodone (11%)



Amphetamine (17%)



Cocaine (7%)



Limitations of POCT can miss signs of abuse

By relying solely on POCT or presumptive drug testing, you may overlook drug misuse that could be detected through definitive confirmatory testing, as well as specific information on the quantitative concentrations of specific drugs that could allow you to take earlier action for prevention and treatment.

Quest Health Trends[®] data show the vast majority of physicians—85 percent—believe drug testing gives them the confidence to prescribe safely, especially as it relates to definitive testing⁶:

86% ●●●●●●●●●●

see definitive drug testing as essential to providing care to patients prescribed controlled substances

75% ●●●●●●●●●●

say definitive drug testing is the only way they truly know what drugs their patient is taking

Why Quest Diagnostics?



Our comprehensive test menu covers prescribed, nonprescribed, and illicit substances, and our exclusive methodologies empower you to take action for patients with chronic pain, anxiety, depression, ADHD, or substance use disorders



We provide state-of-the-art drug testing—optimized testing methods and enhanced sensitivity to detect relevant drugs and metabolites at clinical decision levels



Our toxicology experts are available to help you with test selection and results consultation, through our dedicated Rx Tox Line: **1.877.40.RXTOX (1.877.407.9869)**



One of the industry's most comprehensive drug testing menus and the power of fast results combine with our extensive network of in-house experts to give you the insights you need to act quickly to optimize patient care



Your trusted resource for drug testing solutions

Quest offers a broad menu of lab-based presumptive testing as well as definitive testing utilizing state of the art Liquid Chromatography Tandem Mass Spectrometry



Contact your Quest sales representative or visit **QuestDrugMonitoring.com** to learn more.

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