



Clinical drug monitoring provides critical insight to help mitigate drug misuse and abuse

Monitoring patients for medication adherence can help



Identify prescription drug use or nonuse (medication adherence)



Complement prescription drug monitoring programs (PDMPs) to provide a fuller picture of patient status



Identify substance use disorder early, which can improve treatment success



Identify potential drug-drug interactions and harmful polysubstance use



Detect use of illicit substances including novel psychoactive substances (NPS)



Meet expectations of medical boards and regulatory agencies



Maintain patient access to prescription therapies



Identify drug diversion



Mitigate risk and keep patients and communities safe while protecting clinician practices



Create a baseline for individual patients to help monitor for future changes

Reducing overdose deaths remains a critical priority

Drug overdoses claimed **nearly 70,000 lives in 2025**—an average of approximately 192 deaths every day. Opioids were involved in an estimated 44,564 overdose deaths, with synthetic opioids such as fentanyl continuing to play a major role.¹



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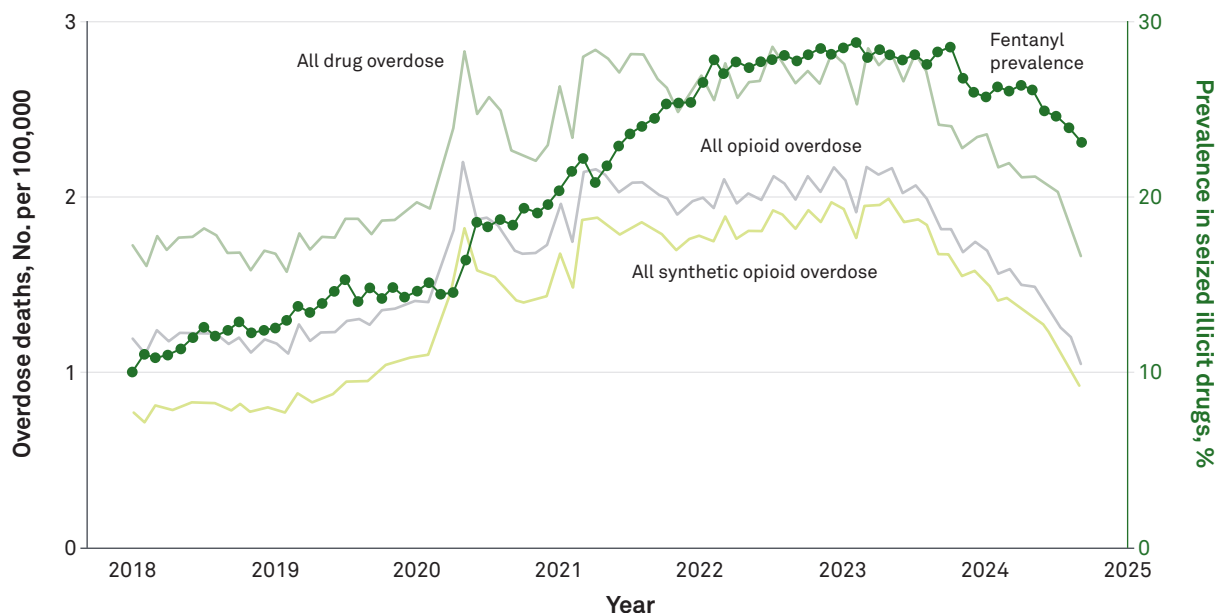


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Fortunately, not all overdoses result in death—and opioid overdoses can often be reversed when naloxone is quickly administered. However, the risk of misuse and overdose remains high because of the widespread presence of illicitly manufactured fentanyl and the emergence of other NPS.

New NPS compounds are always emerging on the drug market, sold mainly online and from street retailers. This includes designer opioids, designer benzodiazepines, fentanyl analogues, synthetic cannabinoids, and other illicit substances. Signs and symptoms can vary based on the type of designer drug. The perceived legality, affordability, and novelty of NPS can put certain individuals at high risk for misuse.² Assessing the presence of NPS in patients is critical for both public health and patient management.

National trend in overdose deaths per 100,000 per month and the proportion of fentanyl in the illicit drug supply^{*3}



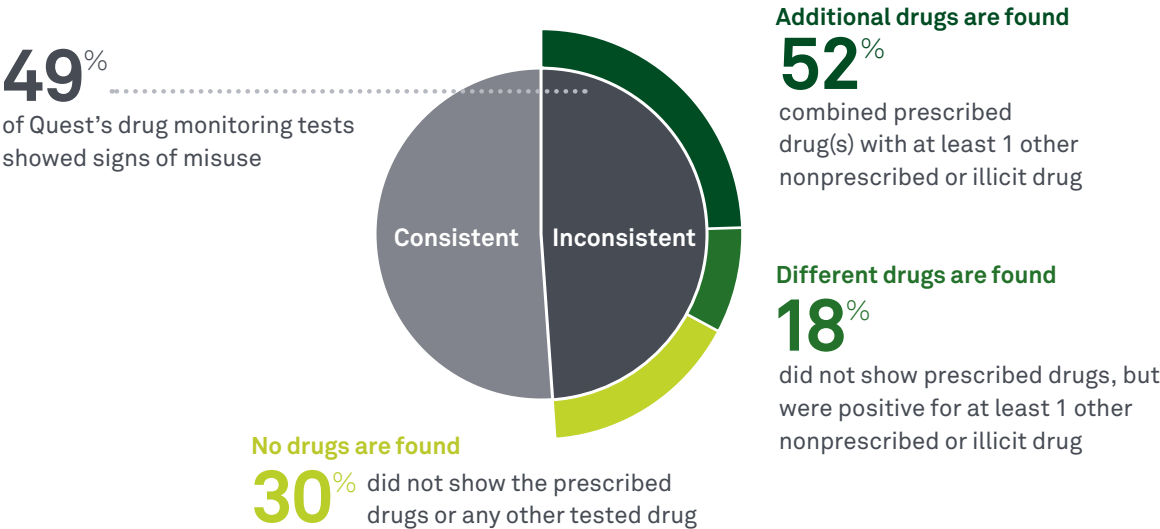
^{*}From January 2018 to September 2024.

Clinical drug monitoring with actionable insights

Clinical drug monitoring is standard of care when managing patients on controlled substances, and it aids in the detection of nonprescribed controlled and illicit substances. This testing is widely supported by medical and public health organizations, including the Centers for Disease Control (CDC).

CDC guidelines for prescribing opioids for pain **state that before starting opioids and periodically (at least annually) during opioid therapy, clinicians should consider the risks and, therefore, the benefits of toxicology testing to assess for prescribed medications as well as other prescribed and nonprescribed controlled substances.**⁴

Data from Quest Diagnostics Health Trends[®] report show that nearly half of patients misuse their medications.⁵



Rely on our medMATCH[®] reports

Our medMATCH[®] reports are designed to provide actionable insights with the goal of “at-a-glance” interpretation. The reports provide a summary of your patient’s consistent and inconsistent results for prescribed drugs and also include reporting on nonprescribed, inconsistent drugs. This allows you to have a complete view of drugs that your patient is taking, address any noncompliance issues, and receive alerts of any potential drug misuse or dangerous drug combinations.

medMATCH reports offer providers an intuitive, streamlined process from ordering to the delivery of the final report.

medMATCH[®] Drug Monitoring Report

Legend	medMATCH Summary		
	medMATCH indicates presence or absence of prescribed and non prescribed drugs. Prescribed drugs are provided by the ordering clinician.		
✓ = Consistent	Prescribed Consistent Drugs prescribed and detected	Prescribed Inconsistent Drugs prescribed but not detected	Not Prescribed Inconsistent Drugs detected but not prescribed
X = Inconsistent	✓ = Methadone	X = Oxycodone	X = Amphetamine X = Ethyl Glucuronide (ETG) X = Ethyl Sulfate (ETS) X = Fentanyl X = Methamphetamine X = Norfentanyl
◆ = Prescribed			

DRUG MONITORING, PANEL 9 WITH CONFIRMATION, WITH D/L ISOMERS, URINE

Alcohol Metabolites	POSITIVE	500 ng/mL	
Ethyl Glucuronide (ETG)	5000	500 ng/mL	X INCONSISTENT
Ethyl Sulfate (ETS)	1000	100 ng/mL	X INCONSISTENT

Alcohol Metab Comments: See Alcohol Metab Notes, LDT Notes

Amphetamines	POSITIVE	500 ng/mL	
Amphetamine	1000	250 ng/mL	X INCONSISTENT
Methamphetamine	5000	250 ng/mL	X INCONSISTENT

Amphetamines Comments: See Amphetamines Notes, LDT Notes

QVE

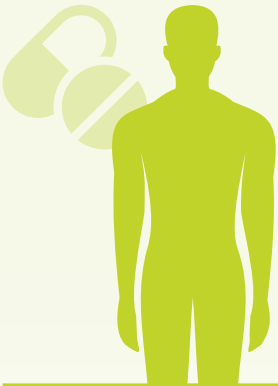
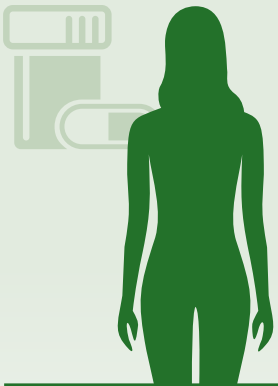
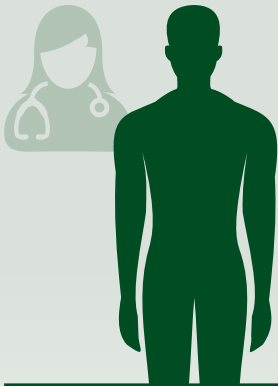
medMATCH summary expanded to 3 categories

Alerts clinician to nontested prescription drugs

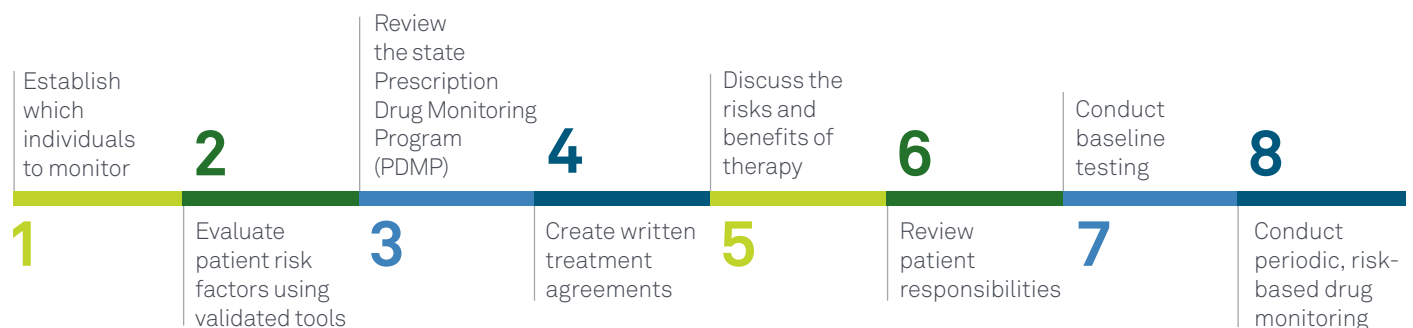
Drug class-specific notes and lab-developed test (LDT) notes are consolidated and listed at the end of the report

Inconsistent or consistent results for prescribed drugs are flagged

Three patient profiles that may benefit from drug monitoring

Characteristics	Patient treated for a mental health condition with a controlled substance Benzodiazepines (Ativan, Xanax) for anxiety, stimulants for ADHD and seizure 	Patient treated for chronic pain with a controlled substance Opioid analgesics (oxycodone, hydrocodone, morphine) 	Patient in recovery from substance abuse disorder Could be related to opioids, alcohol, stimulants, or other substances 
	- May be seeing multiple providers for prescriptions Higher risk for medication misuse, accidental overdose, addiction, and possible exposure to NPS High likelihood of dual diagnosis with substance use disorder High prevalence of polypharmacy, especially in older adults	- On long-term pain management prescription (suffering from pain lasting 3+ months) - Is more prevalent in older adults Co-occurring mental health conditions Significant risk of accidental overdose	- Affects all demographics - May have associated physical comorbidities from past substance abuse (eg, liver disease, chronic viral infection) - Currently in remission and likely engaged in a formal treatment program, including medication-assisted treatment Common dual diagnosis with a mental health condition - Should be evaluated for possible exposure to NPS to reduce harm

A sample drug testing protocol



Recommended testing practices

Recommended testing practices include presumptive testing and confirmation of positives with definitive testing for clinical decision making. **This helps minimize over-testing while providing the right level of information needed to make informed decisions.** Presumptive point-of-care (POC) testing is regulated by the Centers for Medicare and Medicaid Services through the Clinical Laboratory Improvement Amendments (CLIA). Specimen analysis is performed **outside of the clinical laboratory setting**—usually performed in close proximity (eg, chairside or bedside) to the patient **when rapid results are needed.** Lab-based definitive testing complements this approach with greater sensitivity to confirm or refute results and reduce the occurrence of false-positives/false-negatives.



Presumptive drug testing

- Includes rapid POC devices as well as more sensitive laboratory immunoassays
- Provides rapid and inexpensive qualitative results, but often has lower sensitivity, which may lead to false-negative and false-positive results
- Urine or oral fluid collection available

Why use oral fluid testing?

For those situations when urine collection is not practical or observed collection is needed, oral fluid collection is a convenient and effective alternative. Collections can be completed in minutes, performed in-office or at a Quest Diagnostics Patient Service Center.



Definitive drug testing

- Uses highly complex laboratory instruments to identify and quantify prescription medications, illicit substances, and specific parent drugs and their metabolites often missed by POC testing
- Provides greater sensitivity, can confirm or refute presumptive test results, and reduces the occurrence of false-positive/false-negative results for more accurate and informed clinical decision making
- Assesses for substances not detected with presumptive drug testing, including NPS
- Urine or oral fluid collection available

Which drugs to test for

Drugs should be selected based on patient history, treatment plan, health condition, and community usage. **Common drug class tests may include the following⁶:**

- | | | | |
|-----------------------|-------------------|--------------|-------------|
| • Alcohol metabolites | • Antiseizure | • Fentanyl | • NPS |
| • Amphetamines | • Benzodiazepines | • Gabapentin | • Opiates |
| • Antidepressants | • Buprenorphine | • Marijuana | • Oxycodone |
| • Antipsychotics | • Cocaine | • Methadone | |



Comprehensive drug testing panels available, with the ability to create custom panels as needed.



Why Quest?

Quest Diagnostics is far more than a lab. We're an industry leader in laboratory diagnostics and information services with clinical experts, resources, and services to help you meet your patients' needs. With Quest at your side, you can be confident you'll have the insights you need to better the health of your patients and your practice.



Health plan access

Broad health plan coverage with most major insurers makes testing more accessible and can encourage adherence



Access to expertise

With more than 900 MDs and PhDs, and dozens of genetic counselors, our team is available for consultation on test selection and results interpretation



Complete diagnostic menu

Our comprehensive menu of tests—from routine to specialized—was built with your varied needs and those of your patients in mind



Strong logistics capabilities

Daily specimen pickup available with 83,000+ stops every day, approximately 5,000 courier vehicles, and 18 aircraft serving the US



Seamless EHR integration

Manage all your lab testing needs with the comprehensive Quantum® Lab Services Manager platform, exceptional service, and connectivity with over 1,000 EHR systems



Customized patient assistance

We offer a patient assistance program to help ensure that uninsured patients receive care, with each case handled personally



Convenient testing locations

Our expansive network of more than 2,400 nationwide Patient Service Centers makes it easier for patients to follow through with testing



Unparalleled performance

High-sensitivity, low cut-off levels designed to detect drugs at typical dosage levels. Fast turnaround time and results confirmation



Expert support available at 1.877.40.RXTOX (1.877.407.9869)

Stay current in drug monitoring with new insights and updated resources available at **QuestDrugMonitoring.com**



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