ASAM/ACMT Clinical Consensus Statement on Drug Testing in Substance Use Disorder Treatment

Expert Committee Members:
Leslie R. Dye, MD, DFACMT, FASAM, FACCT
Diane Hindman, MD, PharmD, PharmD, FAAP, FACMT
Michael A. Incze, MD, MSEd, FACP, FASAM
Kurt C. Kleinschmidt, MD, DFACMT, FASAM
Elizabeth E. Krans, MD, MSc
Lewis S. Nelson, MD, MBA (*Co-Chair)*
Jeanmarie Perrone, MD
Kelly S. Ramsey, MD, MPH, MA, FACP, DFASAM
Andrew Seaman, MD
Evan S. Schwarz, MD, FACEP, FACMT, FASAM (*Co-Chair*)
Sarah Spencer, DO, FASAM
Silas W. Smith, MD, DFACMT, FACEP
Jason Wasche, DO, FASAM

ASAM Team:
Maureen P. Boyle, PhD
Amanda Devoto, PhD
Emily Einstein, PhD
Sarah Framnes-DeBoer, MS
Dawn L. Lindsay, PhD
Janette Norrington, PhD
Taleen Safarian

Contractor Support:
Sacha K. Song, MD

The individuals listed below volunteered as members of the "People with Lived Experience (PWLE) Panel" and contributed to the development of this guidance. The inclusion of their names in this document acknowledges their contributions but does not imply full endorsement of all recommendations contained herein.

Patient Panel Members:

To be added upon consensus statement finalization

This clinical practice guideline has been endorsed by:

To be added upon consensus statement finalization

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Executive Summary

Purpose

The American Society of Addiction Medicine (ASAM), in partnership with the American College of Medical Toxicology (ACMT), developed this Clinical Consensus Statement on Drug Testing in Substance Use Disorder (SUD) Treatment (hereafter referred to as the Consensus Statement) to provide guidance on the appropriate use of drug testing in healthcare settings.

This Consensus Statement is intended to support clinicians in determining when, why, and how to apply drug testing in the identification of substance use and the clinical management of SUD or substance use related medical concerns. It emphasizes patient-centered, trauma-informed approaches to drug testing that weigh potential benefits against potential harms.

The guidance applies to adults and adolescents receiving clinical care in diverse settings, including SUD treatment programs, primary care, emergency departments, hospitals, residential settings, obstetric care, and other general healthcare settings. This document does not address workplace, forensic, department of transportation (e.g., roadside), or correctional drug testing conducted for non-clinical purposes.

Background

Drug testing—the analysis of a biological sample to detect recent exposure to substances —has long been used in SUD treatment and other clinical settings. When used appropriately, drug testing can provide information that helps clinicians clarify substance exposure, inform treatment planning, and monitor adherence to prescribed medications. Drug testing may also be used as part of therapeutic interventions such as contingency management (CM) when aligned with patient goals.

However, existing research has not demonstrated that routine or universal drug testing improves patient outcomes. Moreover, drug testing can contribute to substantial patient harm, including stigmatization; disengagement from care; erosion of trust; and serious social, legal, and life consequences for patients. In addition, misapplication or misinterpretation of drug test results can lead to inappropriate clinical decisions, denial of care, or punitive responses that are inconsistent with current principles of SUD treatment.

These concerns are heightened by the rapidly evolving and increasingly complex drug supply, broad variability in test performance characteristics, and well-documented inequities in how drug testing is applied and how positive results are acted upon—particularly for pregnant or parenting patients, justice-involved individuals, and racially and ethnically marginalized populations. In addition, understanding has also shifted over the past decade regarding the impact of drug testing on patient engagement and retention in care.[1,2]

Given these challenges, updated guidance is needed to support clinicians to determine when and how to apply drug testing in ways that meaningfully informs patient care while minimizing harm, preserving patient dignity, and promoting ongoing engagement in SUD treatment.

Summary of Recommendations

This Consensus Statement emphasizes that drug testing is a **clinical tool** and not a substitute for patient self-report or clinical assessment. The recommendations throughout this document are grounded in the principle that drug testing should be **applied in a patient-specific, trauma-informed, and non-punitive manner**.

1. The decision to order a drug test, presumptive or confirmatory, should be patient specific, considering:
    a. How the results may inform clinical decision making *(Unanimous consensus)*
    b. The potential consequences for the patient, including but not limited to legal, financial, and occupational *(Unanimous consensus)*
2. Universal drug testing[a] for the sole purpose of screening for substance use is not recommended in any clinical population, including with adolescents and pregnant patients. *(Unanimous consensus)*
    a. Screening for problematic substance use should primarily rely on self-report using validated screening tools. *(Unanimous consensus)*
3. Confirmatory drug testing should be considered when presumptive test results are unexpected or incongruent with patient history and the results will potentially inform significant clinical decisions. *(Unanimous consensus)*
4. Drug testing should be conducted following trauma-informed principles of care unless the patient's medical condition prevents this approach. As such, observed urine specimen collection is not recommended. *(Unanimous consensus)*
5. The frequency of drug testing should not be pre-determined; it should be individualized based on patient care needs. *(Unanimous consensus)*
6. Unless the patient's medical condition prevents it, unexpected drug test results should prompt conversations with them and consideration of treatment plan updates, using a shared decision-making framework. *(Unanimous consensus)*
7. Unexpected drug test results should not be the sole basis for:
    a. Clinical decisions *(Unanimous consensus)*
    b. Administratively discharging a patient from clinical care *(Unanimous consensus)*
8. Drug test results alone should not be used as the sole basis for:
    a. Diagnosing a SUD *(Unanimous consensus)*
    b. Making level of care recommendations (eg, outpatient versus residential) *(Unanimous consensus)*

[a] Universal drug testing is defined as screening all patients in a given setting regardless of clinical presentation or risk factors.

9. Drug tests should be ordered and interpreted:
    a. By clinicians who have the appropriate knowledge and scope of practice to consider the potential benefits and harms for the patient and limitations of the specific test used, including the potential for false positive or negative results, *(Unanimous consensus)* OR
    b. Following protocols established by clinicians who have this knowledge and scope of practice *(Unanimous consensus)*

Together, these recommendations encourage clinicians to apply drug testing thoughtfully, sparingly, and in alignment with patient goals.

Patient Voice

Research and patient input indicate that the impact of drug testing in SUD care depends heavily on trust and how testing is used.[3] A Patient Panel was engaged throughout the development of this Consensus Statement. The Patient Panel emphasized that drug testing can be experienced as paternalistic and stigmatizing rather than therapeutic, particularly when results are used punitively or not used to meaningfully inform treatment decisions. However, they noted drug testing can be beneficial when applied in a patient-centered manner—such as when requested by patients, used to support recovery goals, and interpreted alongside overall functioning rather than as a primary measure of treatment success.

Introduction

Purpose

The purpose of this Consensus Statement is to provide guidance on the effective use of drug testing in the identification of substance use and the clinical management of substance use disorder (SUD) or substance use related medical concerns.

Background

Drug testing—or analysis of a biological sample to detect recent exposure to substances—is a tool that provides information about an individual's recent substance use. Test results can inform how clinicians manage and treat the patient and may be used therapeutically in SUD treatment (eg, as an element of contingency management (CM) and other incentive based clinical interventions).[4-7] However, there are limitations to the clinical utility of drug testing, along with notable potential harms to patients.[8-13] The potential harms and benefits must be carefully weighed when determining when and how to conduct drug testing for a given patient.

Drug tests are commonly misapplied or misinterpreted, which can contribute to patient harms and waste valuable healthcare resources .[14] National standards can help guide appropriate application and interpretation of drug testing in SUD treatment.[15,16] ASAM most recently provided guidance on this topic in a 2017 Clinical Consensus document on the appropriate use of drug testing in clinical addiction medicine.[17] Understanding has also shifted over the past decade around the impact of drug testing on patient engagement and retention in care.[1,2]

This update provides guidance applicable to drug testing in the context of clinical care with consideration for the rapidly changing drug supply and current best practices for patient-centered care.

Terminology

Throughout this Consensus Statement we use the terms "presumptive" and "confirmatory" in the context of drug testing. Presumptive tests, sometimes referred to as screening tests, use methods with high sensitivity and low specificity and are used as a rapid indicator of the potential presence of a drug or metabolite. Presumptive testing is the most commonly used methodology for drug testing.

Confirmatory drug tests, sometimes referred to as definitive tests, use methods with high specificity that can identify specific drugs, their metabolites, and/or establish quantities. As such, positive results on a confirmatory test can be interpreted as conclusive. Gas or liquid chromatography combined with some form of mass spectrometry is the gold standard method in confirmatory drug testing. Confirmatory testing is often, but not always quantitative, measuring

the quantity of a particular compound in a sample. However, quantitative information is not always reported.

Drug testing is not intended to include drug checking, or analysis of the contents of a substance an individual intends to use.

This Consensus Statement also commonly refers to positive and negative drug tests. Positive tests are those that report detection of the presence of a target substance in a sample. Positive tests can be either a true positive or a false positive. A true positive drug test indicates that the patient providing the sample had a detectable amount of the targeted substance(s) in their system when the sample was collected. A false positive refers to the reporting of a positive drug or drug metabolite test result when that drug or metabolite is not present in the specimen.

Negative tests are those that do not report detection of the presence of a target substance in a sample. A true negative drug test does not mean that a patient has not used substances; it means that the patient has not used the substance(s) targeted by the test within the window of detection, or the amount remaining in the patient's system is less than the test is capable of detecting. A false negative refers to the reporting of a negative drug or drug metabolite test result when that drug or metabolite is present in the specimen.

We also refer to expected and unexpected drug test results throughout this Consensus Statement. Expected test results refer to drug test findings that align with the patient's self-report or known history. Unexpected test results refer to drug test findings that do not align with the patient's self-report or known history. Unexpected test results may occur when a patient is unaware of or chooses not to report all the substances they have taken. They may also reflect false positive or false negative results.

Clinical Uses and Limitations of Drug Testing

Research is limited on the effectiveness of drug testing as a component of SUD treatment. Our systematic review of the literature (see *Methodology*) found no high quality studies demonstrating that systematic or universal drug testing improves patient outcomes. However, drug testing can provide helpful information that informs assessment of risks to the patient and others. Drug testing is commonly used in this context and can serve important clinical purposes, such as:

- assessing withdrawal risk
- objectively assessing substance exposure when clinical findings do not match patient self-report
- monitoring medication adherence
- helping patients understand which substances they have been exposed to
- monitoring substance use as a component of incentive based interventions (e.g., CM)
- monitoring progress on treatment goals related to substance use reduction or cessation
- detecting return to use to support rapid treatment plan adjustments

- providing a source of motivation and accountability for patients, when aligned with their goals[21]

As with any clinical test, the value of drug testing depends on whether it is performed and interpreted correctly. It is important that clinicians ordering and interpreting drug tests understand the limitations of available tests and have the knowledge and competency to interpret them correctly (see *Clinician Competencies*).

Potential Harms of Drug Testing

In addition to the limitations of drug testing, clinicians should be aware of potential patient harms. Drug testing can be perceived as invasive, and positive test results can have significant negative consequences for patients, such as probation or parole revocation, child welfare system involvement, loss of child custody, and loss of employment or professional credentialing. These consequences can be destabilizing for patients and can disrupt the patient-clinician relationship.[22-25] Drug testing is often applied inequitably across race and ethnicity, leading to significant disparities in related harms (see *Health Equity*).

In addition, some SUD treatment programs inappropriately require a positive drug test prior to admission, leading to barriers in access to care (see *Drug Testing Limitations*). In addition, requirements for regular drug testing can interfere with patients' work schedules or caregiving responsibilities, which can contribute to patient harms (e.g., loss of employment, stress).

Positive drug test results can also lead to adverse impacts on clinical care. Some SUD treatment programs may administratively discharge patients if there is evidence of return to use. In addition, positive test results can contribute to stigma and reduce the quality of care patients receive.[26] Positive test results may also lead patients to be denied medical services (e.g., heart valve replacements, organ transplants, loss of take-home methadone privileges). These harms sometimes occur in response to misinterpretation of true positive drug test results. For example, a clinician may interpret a true positive test for fentanyl as indicating the patient is continuing to use when the test reflects norfentanyl remaining in the patient's systems for an extended period due to storage in fat cells after chronic use. Patient harms may also occur in response to false positive presumptive drug test results, which can have significant impacts on the patient-clinician relationship.[27] Fear of these and other drug testing related harms can deter patients from engaging in care at all.

Drug testing can also contribute to misattribution or confirmation bias, whereby a clinician assumes drug use is causing or contributing to a patient's symptoms when the presence of the drug is an unrelated, incidental finding. This can lead to missed or delayed diagnoses and significant health harms, particularly in acute care settings. Coincidental drug test results can also contribute to stigma and discrimination in current and future healthcare encounters.[28]

Scope of Consensus Statement

This Clinical Consensus Statement provides guidance on the use of drug testing in the clinical management of patients with SUD or SUD-related medical concerns. It pertains to adults and adolescents and includes discussion of population specific considerations for pregnant and postpartum patients and individuals receiving SUD care in carceral settings. While drug testing is used in many contexts and settings, ASAM's intent with this Consensus Statement is to focus on clinical settings. Workplace, forensic, and department of transportation (eg, roadside sobriety drug testing), as well as drug testing to monitor adherence to controlled medication (eg, opioid pain medication, stimulant medication for attention deficit hyperactivity disorder [ADHD]) are outside the scope of this document.

A glossary of terms used in this Guideline is included in Appendix A. A summary of abbreviations and acronyms is included in Appendix B.

Intended Audience

The intended audience for this guideline is clinicians using drug testing in the identification of substance use and the management of patients with or at-risk for SUD. This guideline is relevant to clinicians who practice in various settings, including SUD treatment settings, as well as primary care, mental health care, obstetric care, emergency departments, and acute care settings. Some recommendations only apply to specific settings (e.g., inpatient, residential, emergency department settings), as indicated in the narrative. This Consensus Statement may also be useful for healthcare administrators or policy makers to guide development of appropriate policies, protocols, and practice related to drug testing. However, this Consensus Statement is not intended to be a source of rigid laws, regulations, or policies related to drug testing. The recommendations contained in this document support flexible, patient-centered care.

Qualifying Statement

This document is intended to aid clinicians in their clinical decision-making and patient management. The document strives to identify and define clinical decision-making junctures that meet the needs of most patients in most circumstances. Recommendations in this document are not intended to substitute for independent clinical judgment based on the particular facts and circumstances presented by individual patients. Clinical decision-making should involve consideration of the quality and availability of expertise and services in the community wherein care is provided. In circumstances in which the document is being used as the basis for regulatory or payer decisions, improvement in quality of care and patient outcomes should be the goal. Clinicians should strive to make clinical decisions in partnership with patients. Patients should be informed of the risks, benefits, and alternatives to a particular intervention or test, and should be an active party to shared decision-making whenever feasible. Recommendations in this document do not supersede any federal or state regulation.

Methodology

Committee Formation and Oversight

ASAM's Quality Improvement Council (QIC) and Clinical Practice Guideline Methodology Oversight Subcommittee (CPG-MOS) oversaw the development of this Consensus Statement. The QIC, working with a partner medical society (American College of Medical Toxicology-ACMT), oversaw the appointment of clinicians with broad subject matter expertise across addiction medicine and toxicology to the expert committee, representing regional and demographic diversity. A panel of individuals who have lived and living experience with drug testing in substance use treatment (the Patient Panel) provided input during development. See Appendix C for a description of the full methodology.

Systematic Literature Review

The following key clinical questions were identified to be addressed by the systematic review:

1. In individuals with a clinical suspicion of either substance use or SUD, does drug testing assist in the identification of substance use or SUD and change outcomes?
2. In pregnant individuals, does drug testing improve the identification of substance use or SUD or affect outcomes?
3. In individuals in outpatient SUD treatment settings, how does drug testing affect outcomes?
4. In individuals in residential SUD treatment settings, how does drug testing affect outcomes?
5. In individuals in hospital-based SUD treatment settings, how does drug testing affect outcomes?
6. In incarcerated individuals, how does drug testing affect outcomes?
7. How does the use of drug testing in clinical settings disproportionately affect marginalized populations?

These questions informed development of a Population, Intervention, Comparator, Outcome (PICO) framework for identifying relevant research literature to answer each of the key clinical questions.

- **Population:** Adult (18 years or older) or adolescent (10 to 17 years) individuals undergoing care in any clinical setting (e.g., primary care, emergency departments, SUD treatment centers). Additional subpopulations for inclusion were 1) pregnant and 2) incarcerated individuals. We did not include studies focused on children under 10 years of age.
- **Intervention:** Drug testing for the purpose of identifying substance use in medical settings. Any intervention that includes drug testing as an active part of SUD treatment in

a clinical setting. However, if a study includes drug testing, but there is no clear clinical use, the study will be excluded.

- **Comparator:** No Drug testing
- **Outcome:** Substance use, treatment engagement and retention, adverse events, healthcare utilization (e.g., ED visits, hospital admission), and use of addiction medication.

Recommendation Development

The expert committee discussed the evidence and potential recommendations. A modified Delphi process was used for developing consensus.

The expert committee voted with one of the following options: agree, disagree, or abstain. Lack of response was counted as "absent". Expert committee members were permitted to abstain only if they have a conflict of interest or lack expertise on the topic of the recommendation statement. Abstain votes reduce the denominator when calculating agree percent (level of consensus). Level of consensus was calculated as follows:

- 100% consensus was designated as "**Unanimous consensus"**
- >=85% consensus was designated "**Major consensus**"
- >=70-84% consensus was designated "**Moderate consensus"**
- If less than 70% consensus was achieved, a recommendation was not made.

The expert committee discussed all draft recommendations that did not achieve unanimous consensus and in some cases proposed edits. When edits were proposed the expert committee voted on the updated recommendation statement. The expert committee engaged in multiple rounds of discussion and voting until all raised concerns were addressed and all included recommendations reached unanimous consensus.

The detailed Methodology can be found in Appendix C. A list of expert committee members, their areas of expertise, and conflicts of interest are available in Appendix E.
The consensus statements are accompanied by implementation considerations that provide guidance on how to implement the consensus statements. These include important contextual and patient-centered factors to consider for clinical decision-making.

Informed Consent, Confidentiality, and Shared Decision-Making

Treatment engagement and outcomes are enhanced by patient collaboration and shared decision-making. Given the potential for negative consequences of drug test results, consent and confidentiality are critical to consider. Clinicians should educate patients on the reasons for recommended drug testing, anticipated clinical benefits, and potential harms.

At the federal level, the Health Insurance Portability and Accountability Act (HIPAA) protects the privacy of health information and medical records. Part 2 of Title 42 of the US Code of Federal Regulations (42 CFR Part 2) governs the confidentiality of health records from SUD treatment programs and clinicians.[29] Healthcare information is also subject to state regulations, which vary significantly across the country. Clinicians should provide clear and transparent information on the limitations of confidentiality of drug test information, particularly for pregnant and parenting patients and those who are involved with criminal justice or child welfare systems.

Although regulations on adolescent assent and consent for SUD treatment vary by state and may differ from those for medical or mental health treatment, seeking to obtain adolescent assent or consent for treatment is a best practice.[30] Clinicians should be aware that information may also be accessible to parents/guardians through payer documents. Clinicians should clearly communicate with adolescents, and parents/guardians when applicable, on the limits of confidentiality, and what information will and will not be shared.

Considerations for Ordering a Drug Test

Recommendations for Considerations for Ordering a Drug Test

1. The decision to order a drug test, presumptive or confirmatory, should be patient specific, considering *(Unanimous consensus)*:
    a. How the results may inform clinical decision making *(Unanimous consensus)*
    b. The potential consequences for the patient, including but not limited to legal, financial, and occupational *(Unanimous consensus)*
2. Universal drug testing[b] for the sole purpose of screening for substance use is not recommended in any clinical population, including adolescents and pregnant patients. *(Unanimous consensus)*
    a. Screening for problematic substance use should primarily rely on self-report using validated screening tools. *(Unanimous consensus)*
3. Confirmatory drug testing should be considered when presumptive test results are unexpected or incongruent with patient history and the results will potentially inform significant clinical decisions. *(Unanimous consensus)*

Implementation Considerations

- Drug testing should typically be considered when there are inconsistencies between patient self-report and other parts of the assessment (e.g., patient's history and physical

[b] Universal drug testing is defined as screening all patients in a given setting regardless of clinical presentation or risk factors.

exam) and clarification is needed to inform development of an appropriate treatment plan.

- Clinicians should be aware of the potential adverse legal and social consequences of drug testing for patients. They should educate patients on the potential benefits and harms prior to testing, unless the patient's medical condition prevents it.
- Adult patients (and adolescent patients in some states[c]) have a right to refuse any treatment service, including drug testing, except in limited circumstances when they lack the capacity to consent. Clinicians should inform patients of the potential consequences of drug test refusal (e.g., criminal/legal, child custody, health plan coverage, etc.) but should not attempt to coerce patients into participating.
- Clinicians should also consider ordering drug testing when requested by patients (eg, for accountability to self or others, such as family members or child welfare agencies).
- Results of medical and psychosocial assessments should guide the process of choosing the type of drug test and specimen type, or matrix, to use.
- Presumptive tests should not be relied upon when making decisions with significant clinical (e.g., changes in medications, transplant status, methadone take-home privileges) or non-clinical (e.g., child custody) implications for the patient.
- Required reporting of drug test results to anyone other than the patient (e.g., to courts or child welfare agencies) should wait until confirmatory testing is completed as the results may lead to harm, including negative impacts on the patient or the clinician-patient relationship.
- Clinicians should consider the clinical purpose of drug testing for the given patient and the selected test's performance characteristics and window of detection when determining the appropriate specimen type and test frequency.
- Decisions regarding drug testing scheduling, including random versus predictable timing, should be patient specific. See Table 1 for additional information.

Rationale

The systematic review found no high quality studies demonstrating that systematic or universal drug testing improves patient outcomes. Recommendation #1 aligns with best practices in clinical medicine. The decision to use any tool in health care should be grounded in the principles of improved patient care and outcomes. To avoid wasting healthcare resources, testing should generally only be recommended when the results may impact clinical decision-making.[d] If clinicians do not have clearly defined goals for testing, then the test has low clinical value and generally should not be ordered.[5,15]

Clinicians should consider the potential benefits and harms of drug testing for a given patient when recommending drug testing. Clinicians should be aware of the range of possible negative

[c] See *Adolescent Consent and Confidentiality* Section
[d] Drug testing for forensic or surveillance purposes is beyond the scope of this document

consequences of drug testing and should educate patients on these risks. Patients should be engaged in shared decision making and provide informed assent or consent prior to testing.

Table *1. Potential Benefits and Risks of Drug Testing*

Potential Benefits	**Potential Risks**
Monitoring medication adherence	Perceived as invasive or paternalistic; erosion of trust between patient and clinician
Objective information on substance exposure during the tests window of detection	Life-altering consequences (eg, probation or parole revocation, loss of child custody, housing, employment or credentialing)
Awareness of potential drug-drug interactions	Denial of medical services (eg, heart valve replacements, organ transplants, loss of take-home methadone privileges)
Source of motivation and accountability for patients	Reduced retention in care/avoidance of healthcare
Monitoring progress towards substance use related goals	Misattribution or confirmation bias leading to missed or delayed diagnoses
	Misinterpretation of test results, either negative or positive, impacting care
	Stigma, discrimination

Confirmatory drug testing should be considered when presumptive test results are unexpected or incongruent with patient history, and the results will potentially inform significant clinical decisions. In some cases, a non-judgmental conversation with the patient regarding the presumptive drug test results (See *Effective Implementation of Drug Testing in Clinical Practice*) may clarify the patient's history and prevent the need for confirmatory testing. As with the decision to order presumptive testing, clinicians should consider how the results would potentially impact clinical decision making, with consideration of the likelihood of receiving test results in time to inform decision making, and the potential risks and benefits for the given patient.

This Consensus Statement is designed to convey statements about drug testing as part of appropriate clinical care. It is not an analysis of the cost effectiveness of drug testing using various technologies or under various circumstances. However, inappropriate use of drug testing, particularly confirmatory drug testing, can have extraordinary costs to the healthcare system and at times the patients who are receiving care. As such, clinicians should be judicious in their decisions to order confirmatory drug tests.

Some patients may find clinical benefit in the accountability of drug testing and may request it.[22] Others may request drug testing to demonstrate their progress to others, such as family members, employers, the child welfare agency, or probation or parole officers. Clinicians should consider patient preferences in the context of potential clinical benefits, which may include direct impacts on patient behavior as well as access to services (e.g., supportive housing) or avoiding harms that

could be destabilizing to the patient such as loss of child custody or incarceration. In some instances, there may be insufficient clinical justification to order tests requested by the patient. Patients may have the option of self-pay in these circumstances.

Universal drug testing is not recommended because it does not consider the specific benefits and risks for harm for individual patients. However, there may be some clinical settings where the prevalence of drug testing is high. For example, OTPs where regular drug testing is required by federal law or SUD treatment programs that utilizes CM or other incentive based interventions.

Self-reported substance use information collected using validated screening tools is generally a reliable method of identifying patient substance use (see Appendix D).[31] Drug testing can be a useful supplement to patient self-report as patients may be unaware of the composition of the substances they have used.

Clinicians often rely on drug testing because they question the reliability of self-reported drug use. While not a topic of focus for the systematic review, four of the included studies evaluated the concordance between self-report and biological drug testing.[10,32-34] A systematic review and meta-analysis of over 200 studies across varied settings found general high agreement between self-report and drug testing results, along with low false-omission rates.[31] The highest concordance was found in clinical trials, situations in which no consequences were anticipated for the reporting of use[e], and when patients were informed in advance that biological testing would occur. Concordance has been shown to vary by substance type, with the highest concordance generally reported for tobacco and cannabis use.[31,35-37] Timing may also matter, as more recent use is reported less frequently than more distant use.[31] Studies have also shown that accuracy of self-report may be impacted by factors such as concern that accurate reporting might impede a patient's access to MOUD.[36,38,39]

In addition to a desire to avoid negative consequences of substance use disclosure, some patients may underreport substance use for multiple reasons, both intentional and unintentional. They may not accurately remember everything they have used in the given timeframe, or they may not know which substances were included in what they have taken. Patient responses may also be subject to a social desirability effect. A growing body of research suggests that patients may be more likely to respond accurately during computer based self-report compared with a clinician interview. Computerized self-interviews increase reporting of sensitive topics, including illicit drug use.[40] This method may reduce social desirability bias, as patients are able to give their responses to the computer rather than directly to a human.[41] Computerized versions of the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) and Addiction Severity Index (ASI) are valid approaches to screen for and assess SUD.[42,43]

[e] As assessed by the purpose of data collection and how they would be used; drug tests in SUD treatment settings were categorized as having anticipated consequences.

Drug Test Refusal

Adult patients generally have a right to refuse any treatment service, including drug testing when they have decision making capacity. In some states, adolescents also have this right. Treatment programs should not attempt to coerce patients into participating. When a patient refuses a drug test, it should lead to a clinical conversation. Typically, the clinician will have a sense of the patient's reason for refusal. For example, the clinician may have observed recent changes in behavior suggestive of a return to substance use, or the patient may be very uncomfortable with the sample collection process or pregnant and afraid of the potentially serious consequences of a false or true positive test.

Drug test refusal should be documented, along with the clinician's interpretation of its clinical relevance for the given patient. Clinicians should work with each patient to explore denial, motivation, and actual use. As trust grows, clinicians can educate patients on the clinical reasons for drug testing and encourage those who have refused testing to participate in the future.

Matrix Considerations

Urine, blood, exhaled breath, saliva, sweat, nails, hair, and meconium are all biological matrices that are used in drug testing. Urine drug screening (UDS) is the most well-established and common form of drug testing in clinical settings.[44] However, patients may perceive UDS as invasive or embarrassing, particularly when observed. The availability of point-of-care tests, ease of collection, and the high concentrations of drugs and metabolites found in urine make lab testing and onsite screening simple.[6,8,16] The choice of matrix should be determined based on which one is best able to answer the clinical questions at hand. Although urine is the best established matrix in addiction treatment settings, other matrices provide different levels of sensitivity and specificity over different windows of detection. When multiple matrices could reasonably be used, clinicians should consider the patient's preferences. For example, oral fluid testing is acceptable to most patients and may be preferred to UDS.[45]

Effective Implementation of Drug Testing in Clinical Practice

Substance Use Disorder Treatment Settings

Recommendations for Effective Implementation of Drug Testing in Clinical Practice

4. Drug testing should be conducted following trauma-informed principles of care unless the patient's medical condition prevents this approach. As such, observed urine specimen collection is not recommended. *(Unanimous consensus)*

5. The frequency of drug testing should not be pre-determined; it should be individualized based on patient care needs. *(Unanimous consensus)*
6. Unless the patient's medical condition prevents it, unexpected drug test results should prompt conversations with them and consideration of treatment plan updates, using a shared decision-making framework. *(Unanimous consensus)*
7. Unexpected drug test results should not be the sole basis for:
    a. Clinical decisions *(Unanimous consensus)*
    b. Administratively discharging a patient from clinical care *(Unanimous consensus)*

Implementation Considerations

- Evidence-based strategies are available to determine validity of non-observed UDS
- Clinicians should consider alternatives to UDS (e.g., oral fluid testing) if observed drug testing is necessary (e.g., court mandate).
- Clinicians should take a non-judgmental, non-confrontational approach to discussing unexpected test results with patients.
- Clinicians should seek to implement meaningful therapeutic responses to test results and implement them as quickly as possible.
- Drug testing can present opportunities to demonstrate support and build trust with patients.
    - Negative and expected test results should be positively reinforced.
    - Responding to positive drug test results non-punitively and without judgement can strengthen the therapeutic alliance.
- Drug testing should not be the sole method used for monitoring patient substance use and treatment outcomes; test results should be interpreted in the context of collateral and self-report and other indicators.
- Clinicians should be aware that results that are incongruent with patient self-report may be due to the patient being unaware of what they are taking due to adulterants in the drug supply.
- When making patient care decisions, clinicians should consider all relevant information, including the patient's goals and preferences, rather than the results of drug testing alone.
- Although administrative discharge may be necessary in some instances—such as in response to behaviors that pose a risk of harm to other patients or staff—SUD treatment programs should minimize the practice.

Rationale

Frequency of Drug Testing

Six studies identified in the systematic literature review addressed procedural aspects of drug testing in SUD treatment settings such as frequency, observed, and randomized testing.[34,46-50]A retrospective cohort study using data from a French health insurance database compared retention in treatment for patients who had completed at least one drug test to a control group (identified as having no drug test reimbursements).[46] Those who had at least one drug test during treatment were retained in treatment for an average of 100 more days. The authors noted significant limitations in the study, including selection bias based on which data were included in the database and confounders (eg, SUD severity) not included in the database and therefore not controlled for.

Two studies compared the impact of drug testing frequency on substance use and treatment retention.[34,47] A retrospective chart review of patients with OUD in outpatient treatment showed that individuals who were tested more frequently (biweekly, weekly, or more than weekly) were more likely to be retained in treatment one year later as compared to individuals who were tested less than monthly.[47] There were notable limitations in this study, such as lack of protocol for when to test and lack of randomization between frequency conditions. Additionally, those who are tested more often may have been offered more services, which could explain the observed relationship. Another study examined frequency of testing as a substance use deterrent and found no difference between weekly testing and random biweekly testing on substance use.[34] However, the participants were aware of which group they were assigned to.[34] Due to the limitations of these studies, the expert committee noted that they had limited value for informing a recommendation on the frequency of drug testing in SUD treatment.

Two studies surveyed SUD treatment professionals about their drug testing practices. Clinicians who prescribe buprenorphine and conducted UDSs on patients at every visit were more likely to terminate treatment compared to those who randomly drug tested, tested at fixed intervals, or did not drug test at all.[48] Frequent randomized testing, both alone and when combined with observed testing among OTPs, was associated with significantly reduced treatment retention beyond one year.[49] Both studies were survey-based with limited patient information, and confounders may have affected the data.

Random drug testing may be more effective for detecting substance use.[51] However, requiring patients to be available for random drug testing can be disruptive to their day to day responsibilities, including work, school, and caregiving responsibilities. The consensus of the expert committee is that the frequency of drug testing should be determined based on the individual patient's needs. The clinical questions and the likely risks and benefits for the given patient should drive decisions related to test frequency and scheduling strategy. Based on these questions, clinicians should look to the test’s detection capabilities and windows of detection to help determine the frequency of testing.

Trauma-informed care

There is a high prevalence of psychological trauma among individuals with SUD.[52] The Substance Abuse and Mental Health Services Administration (SAMHSA)'s Treatment Improvement Protocol (TIP) 57, Trauma-Informed Care (TIC) in Behavioral Health Services provides guidance on preventing retraumatization during SUD treatment services.[53] The guidance notes that:

> A key objective in TIC is to prevent retraumatization generated by intervention and treatment practices and policies. […] Some staff and agency issues that can result in retraumatization include […] obtaining urine specimens in a nonprivate and/or disrespectful manner.

Historically, observed urine drug testing has been common in SUD treatment settings to prevent specimen tampering. Observed urine drug testing is a procedure in which an observer watches a patient urinate into the specimen collection container with the intent of preventing tampering and specimen substitution. Over the past decade, there has been growing recognition of the negative impact on patients and the patient/clinician relationship.[22,54-56] As used in this document, observed urine drug testing is not intended to include specimen collection through an external (condom) or Foley catheter in acute care settings.

Two studies were included in the systematic review on the topic of observed urine drug testing.[49,50] The first study found an increase in opioid positive UDS when an OTP began requiring observed urine collection.[50] However, the pre-post study design and lack of accounting for potential confounders limited the utility of this study. The second study found reduced retention in treatment in OTPs that conducted more frequent observed and random drug tests compared to those conducting fewer observed or random tests.[49] This study was also of limited value, as it provided survey results with limited information on patients.

Observed urine drug testing may be uncomfortable for both patients and staff. This is particularly true for patients with a history of sexual trauma. Patients report that the process is embarrassing, degrading, stigmatizing, and disrespectful.[22,56,57] Established methods for detecting sample dilution, substitution, and adulteration including testing of pH, temperature, creatinine, and specific gravity, can determine validity of non-observed tests.[58] As such, observed urine collection is unnecessary and not recommended. If an observed sample is court mandated and must be taken, clinicians can consider other matrices such as oral fluid. Alternatively, the clinician can request that the mandating authority conduct such testing so the therapeutic relationship between the patient and clinician is not affected.

All settings providing care for patients with SUD should provide trauma informed care whenever possible. Trauma-informed drug testing involves:

- Engagement in shared decision-making and informed consent

- Respect for patient preferences and choices, including opting out of recommended drug testing
- Privacy during specimen collection (i.e., avoiding observed urine collection)
- Providing information on what to expect before the test
- Prioritizing patient dignity and respect throughout the process
- Non-judgmental, clinically focused responses to unexpected drug test results

There may be times in acute care settings where a patient's medical condition prevents a fully trauma-informed approach. For example, a patient may be too acutely ill to participate in shared decision making and urine may be collected through a foley catheter. However, patients with decision making capacity should be given the opportunity to provide informed consent (or assent for patients under the age of 18).

Patient Centered Responses to Drug Testing

When applied, drug testing should be used as a tool for supporting recovery rather than exacting punishment. When clinicians respond to drug testing punitively it can create an "us versus them" mentality and undermine trust in the patient/clinician relationship.[3] Demonstrating to patients that drug testing is a therapeutic, rather than punitive, component of treatment may require time and multiple conversations.

As with self-reported substance use, unexpected drug test results should be addressed as part of treatment. Unexpected drug test results refers to findings that do not align with the patient's self-report or known history. Unexpected results may occur when a patient is unaware of or chooses not to report all the substances they have taken. They may also reflect false positive or false negative results.

Negative or expected test results present opportunities to demonstrate support and build trust between patients and clinicians and should be positively reinforced. Unexpected test results should prompt a non-judgmental clinical conversation. Patients should feel confident that programs will support them without judgment or punishment. Early in the treatment process, clinicians should discuss how they will respond to patients' return to use, including through reassessment of their treatment plan and adjustments to the services and supports provided.

When discussing unexpected drug test results with patients, clinicians should acknowledge the limitations of the test and the potential for false positive results when applicable. These discussions should also acknowledge the potential negative consequences for the patient. It is critical to avoid blaming, shaming, or punishing the patient and to focus on an appropriate therapeutic response.

Drug testing can have significant negative consequences for patients who are pregnant or parenting, as well as for those involved with the criminal justice child welfare systems. Correct interpretation of results is particularly important in these instances, and confirmatory testing should be used to confirm any findings that do not align with the patient's self-reported use.

Clinicians should interpret drug test results in the context of the patient's broader clinical picture (eg, physical and mental health, self-reported use, functioning, preferences) and should not rely on drug test results alone to make significant clinical decisions. Interpretation and response to unexpected drug test results should also consider the patient's treatment goals. Each patient enters treatment with diverse needs and at different stages of readiness to change. Some patients may be striving for abstinence from all substances. Others may be seeking to reduce use, improve health and functionality, or discontinue use of some substances but not others.

Start Box

Drug Testing in Contingency Management Interventions

Contingency management (CM) is an evidence-based psychosocial intervention that uses rewards or incentives to reinforce positive behavior changes, including treatment participation, medication adherence, and reduced substance use.[59-68] CM is effective for reducing substance use across various substances[59,60,69-71] and populations, including patients with comorbid psychotic disorders,[72] patients on MOUD,[59] and pregnant patients.[73] CM is particularly effective for stimulant use disorder, an SUD for which there is currently no FDA approved medication.[71,74,75]

CM interventions include multiple components, and the effects of each component individually are not well understood. Drug testing is often used within the context of CM to monitor substance use, with rewards contingent on a negative drug tests, and medication adherence, with rewards contingent on test results positive for buprenorphine metabolites, for example, There is evidence that the effects of CM exceed what is expected based on incentive value alone.[75] A recent systematic review evaluated predicted versus observed effects in CM studies targeting single substance use. For cocaine use, eight out of 10 studies significantly outperformed the predicted effect. This did not extend to cigarette use, with only six of 19 studies outperforming the predicted effect. These results indicate that at least for cocaine use, there are factors other than incentives contributing to the success of the intervention. Drug testing in the context of CM has strong patient acceptability.[76,77] The cumulative research suggests that interventions, such as CM, that incorporate drug testing as part of a patient-centered, non-punitive therapeutic incentive program may be beneficial to patients.

See Appendix D for resources to assist in developing CM interventions.

End Box

As discussed in ASAM's *Clinical Consideration for Engagement and Retention of Nonabstinent Patients in Substance Use Treatment*[78], at times, patients are administratively discharged from SUD treatment programs if they resume substance use.[79-81] In essence, patients are denied admission to and/or discharged from care for exhibiting characteristics of the disease for which they need treatment. These practices are inconsistent with the current understanding of addiction as a chronic disease.[81,82]

Administrative discharge refers to the termination of treatment services when a patient fails to adhere to a program's rules. Addiction is a chronic illness and periods of return to use are expected. Return to use, identified through patient report or drug testing, should prompt a clinical discussion with the patient and consideration of whether updates are needed to their treatment plan. A top priority in the care of every patient should be supporting continued engagement in the continuum of care. Administrative discharges should be a last resort, for example, when safety concerns for other patients or staff cannot be otherwise mitigated.[78]

Acute Care Settings

Implementation Considerations

Rationale

The systematic review included ten studies evaluating the impact of drug testing on patient management in acute care settings.[32,83-91] The studies included retrospective case review or cohort studies, or low-quality experiments with low certainty of evidence taking place in emergency departments (EDs), psychiatric EDs, and trauma centers. The findings overall suggest that drug test results did not alter acute management,[32,83,86,87] healthcare utilization,[88,89] or mortality in these settings.[91]

Two studies found a relationship between drug test results and acute care management in patients with suspected intentional overdose.[84,85] However, while there is likely to be overlap between the population of individuals using substances for suicide attempts, it is distinct from our population of interest. In addition, one study found that patients, with or without an OUD diagnosis, testing positive for fentanyl using presumptive tests were more likely to be prescribed naloxone than those without a positive test.[90] Many of these studies noted limitations, including that the results of the tests were frequently not received prior to care decisions, and lack of information on the outcomes of care decisions. Overall, the expert committee determined that the quality of evidence was weak and of limited value in determining the appropriate use of drug testing in acute care settings.

While drug testing has limited utility in acute care management (e.g., because presumptive results generally do not change patient management and are often limited in scope [e.g., do not cover all substances of interest] and confirmatory tests contribute to significant healthcare costs and are typically not received in time to inform clinical decision making) and may contribute to harms, there are instances where testing may be useful. For example, drug testing can help identify patients who are at risk for significant substance withdrawal which may present direct medical risks or complicate management of other health conditions. Testing may also help clarify the substances contributing to withdrawal when a patient is not responding as expected to withdrawal management for opioids or other substances. It may also identify substances in a

patient's system that may interact with prescribed medications. Clinicians may also use drug testing to rule out intoxication or withdrawal as a factor contributing to undiagnosed or undifferentiated medical problems. In these instances, it is critical for clinicians to understand the limitations of the test used and to avoid over-interpreting a negative test result or assuming a positive test result is the cause of clinical findings. As discussed throughout this Consensus Statement, clinicians should have a clear clinical question when recommending a drug test and understand how the results can benefit the patient.

Health Equity

Drug testing is often applied inequitably. Black and Hispanic patients are more likely to be tested during pregnancy and at delivery than White patients.[92-96] For patients presenting to the ED with chest pain, Black and male patients are more likely to be tested than White and female patients.[97] Black individuals are more likely to be prescribed methadone than buprenorphine, which has stricter monitoring policies, including drug testing at least 8 times per year.[98]

Differential testing leads to inequities in related consequences. More frequent drug screening is associated with increased administrative discharges.[99] In addition, Black newborns are four times more likely to be referred to CPS than White newborns, despite similar rates of detected maternal substance use.[100] Trauma patients with a positive drug screen are more likely to be referred to mental health services if they are White or insured compared to non-white patients.[101] For justice-involved populations, a positive drug test can be a technical violation of parole. In New York, Black individuals were found to have been incarcerated for a technical violation five times as often as White individuals.[102] These studies are all cross-sectional or retrospective and thus are associative in nature, limiting interpretation.

It is important that clinicians and healthcare administrators are aware of these inequities in the application and consequences of drug testing. As clinicians and programs develop policies and procedures related to drug testing, they should consider how they may contribute to inequitable application and related harms and how to mitigate these risks.

Drug Testing Limitations

Recommendations for Drug Testing Limitations

8. Drug test results alone should not be used as the sole basis for:
    a. Diagnosing a SUD *(Unanimous consensus)*
    b. Making level of care recommendations (eg, outpatient versus residential). *(Unanimous consensus)*

Implementation Considerations

- Clinical criteria that consider the patient's medical and psychosocial needs (eg, *The ASAM Criteria*) should be used when making level of care recommendations for patients with SUD.
- While a diagnosis of SUD or substance withdrawal is typically necessary, a drug test with a positive result should not be required for admission into SUD treatment at any level of care.

Rationale

The systematic review identified three studies related to using drug testing for SUD diagnoses across settings and populations.[10,33,103] One study considered how different SUD assessment methods, including patient self-report, collateral reports, hair and urine drug tests, and clinician ratings in the context of validated substance use scales, compared with use of the Structured Clinical Interview for DSM-IV disorders (SCID) in a community based sample of adults with schizophrenia.[103] Clinician ratings demonstrated the highest accuracy, and combining measures resulted in small increases in accuracy. Drug testing did not improve diagnostic accuracy. Limitations included lack of interrater reliability information for SCID diagnoses and clinician ratings, and drug testing data was not available for all participants.

One retrospective chart review examined if UDS improves diagnostic accuracy of substance-related diagnoses for patients receiving a psychiatric consult in the ED.[33] When considering drug history as part of routine psychiatric assessment, a positive drug screen did not relate to the odds of receiving a substance-related diagnosis. A similar retrospective cohort study examined the utility of drug testing during an outpatient SUD assessment for making treatment recommendations and determining diagnosis.[10] Fourteen out of 174 (8%) of individuals reported no recent drug use but tested positive on the drug test. A diagnosis was changed for only one of those individuals. This study had significant limitations, as it was a retrospective chart review, and it was unknown whether the drug test results were viewed prior to the consultation. Both studies were largely limited to adult patients who were able to provide medical history. The expert committee noted significant limitations across these studies but agreed with the direction of the findings that a drug test adds limited additional value to diagnosis by a trained clinician.

When diagnosing SUD, clinicians consider substance use information in the context of a patient's history, psychosocial assessment, physical examination, and available collateral information.[15,104,105] A positive drug test is neither necessary nor sufficient to establish a diagnosis of SUD. When conducted, drug testing should not be relied upon as the sole measure of a patient's substance use. Results should be interpreted in the context of the patient's self-reported substance use whenever possible.

Some programs require a positive drug test prior to treatment admission or medication initiation, perhaps considering recent substance use as a proxy for SUD. However, requiring a positive test can unintentionally encourage substance use prior to treatment initiation. In addition, a positive drug test does not explain whether a patient's signs or symptoms are caused by the presence of a substance. Nor does it inform an understanding of the patient's patterns of use over time or severity of the SUD.

It is also important to correctly interpret negative drug test results. An accurate negative test result does not rule out substance use, nor does it rule out SUD, which can be present without recent substance use. For example, in addition to numerous analytical and temporal factors that can result in a negative drug test, a patient may have overdosed recently and avoided use in the interim with support from their family. They may have a severe SUD requiring high intensity treatment. Requiring a positive drug test before admission to care or to high intensity outpatient or residential care could deny patients admission to the appropriate care setting and put them at significant risk for harm.

Clinician Competencies

Recommendations for Clinician Competencies

9. Drug tests should be ordered and interpreted:
    a. By clinicians who have the appropriate knowledge and scope of practice to consider the potential benefits and harms for the patient, and limitations of the specific test used, including the potential for false positive or negative results, *(Unanimous consensus)* or
    b. Following protocols established by clinicians who have this knowledge and scope of practice. *(Unanimous consensus)*

Implementation Considerations

- Clinicians ordering drug tests should be aware that all tests have some rate of false-positive and false-negative outcomes and know the limitations of the matrix used and test(s) ordered.
- Clinicians should determine the questions the test is intended to answer before the test is selected and should ideally have a non-punitive plan for what to do with the results
- When test results are unclear, clinicians should communicate with the testing laboratory or a medical toxicologist to properly interpret them.

Rationale

Appropriate selection and interpretation of drug tests can be complex and require a thorough understanding of pharmacokinetics—how the body processes substances—including the absorption, distribution, metabolism, and elimination of the substances used and their metabolites.[7,8,15] The presence of a drug or metabolites in the biological matrix indicates prior exposure only and generally cannot provide more information about the pattern or frequency of use.[16,104] In addition, test selection is complicated by the rapidly changing drug supply. Many novel synthetic substances, as well as substances that are now ubiquitous in the drug supply (e.g., fentanyl, synthetic cannabinoids) are often not detected by standard presumptive tests.[16,105]

The timing of sample collection and matrix selection is important. Substances have a predictable rate of elimination from the body, but the rate varies across matrices (e.g., urine, blood, hair). Some drug tests may be better at detecting a substance in a particular matrix, which means it is important for clinicians to understand the test's performance characteristics, such as sensitivity and specificity, to gauge the possibility of false negatives or positives. But even the most effective test under ideal circumstances can only measure the presence of a substance within the window of detection.

Clinicians who order drug tests should have the appropriate training and scopes of practice to select an appropriate test and interpret it correctly.[106] Clinicians without sufficient competency in this area can order drug tests following protocols established by clinicians who have this knowledge and scope of practice. Drug testing protocols should be patient centered, outlining the clinical circumstances in which specific drug tests are appropriate for a given patient.

Many clinicians have significant knowledge gaps related to drug testing. A recent study evaluating clinicians specializing in pathology, emergency medicine, primary care, and internal medicine found significant knowledge gaps in UDS interpretation. Misunderstanding related to opioid exposure, metabolism, and immunoassay cross-reactivity were among the most clinically significant gaps.[106] Another study found that while addiction specialists are generally knowledgeable about urine drug testing and its application, there are important educational gaps pertaining to the relative accuracy of and differences between immunoassay [IA] and liquid chromatography-tandem spectrometry [LC-MS/MS].[58] Clinicians are likely to underestimate the accuracy of confirmatory LC-MS/MS testing.[107]

Bias may contribute to misinterpretation of presumptive drug tests. Patient factors including treatment adherence, comorbid mental health conditions, treatment history, legal status, and race may impact clinicians' perception and interpretation of the UDS results.[107]

Drug testing results can be misinterpreted if clinicians are unaware of or mistaken about the substances measured in the test.[5,14] Clinicians can also misinterpret the results or put too much emphasis on the UDS if they do not recognize that the results are a snapshot of substance use

over a short period of time, that return to use is part of the expected course of SUD, or the need to look at drug test results in the context of the patient's treatment goals.[14,15,104]

Educational interventions are effective for improving clinician accuracy in drug test interpretation.[108] Drug testing laboratories are a critical source of support for drug test interpretation.[105,109-112] Ideally, laboratory staff should be proactive in educating physicians of changes in drug testing and new drug screening methods or by providing reports on the potential and occurrence of false positive results.[110] Laboratory-generated urine toxicology interpretation service for clinicians prescribing chronic opioid therapy can help clinicians interpret results more accurately, quickly, and confidently.[111] Concerningly, in a survey of clinicians, more than 30% reported that they would seek UDS information from the internet or peers rather than clinical or laboratory experts.[106] Physicians can consider obtaining training and certification as a Medical Review Officer (MRO). MRO training, regulated by the U.S. Department of Transportation, prepares physicians to "provide quality assurance review of the drug testing process for the specimens under [their] purview, and determine if there is a legitimate medical explanation for laboratory confirmed positive, adulterated, substituted and invalid drug test results."[113]

Population Specific Considerations

Pregnant Patients

Many principles of drug testing for a general population apply to pregnant patients. However, there are some important factors that deserve unique consideration before recommending drug testing for a pregnant patient. The American College of Obstetricians and Gynecologists (ACOG) recommends drug testing:

> [Drug testing should] be performed only with the patient's consent and a positive test not be a deterrent to care, a disqualifier for coverage under publicly-funded programs, or the sole factor in determining family separation.[114]

The systematic review identified four papers related to drug testing in pregnant patients.[115-118] Two of the papers found that universal, rather than risk-based UDS may identify more infants at risk for Neonatal Opioid Withdrawal Syndrome (NOWS).[115,117] Another study comparing patient self-reported substance use during their first prenatal visit with drug test results suggested that universal testing may detect substance use more often than clinician opinions or patient self-report.[118] Overall, universal screening resulted in 32 positive tests out of 237 UDSs, while 16 out of 230 patients self-reported substance use, and 12 positive tests were obtained based on patient specific orders. However, the authors did not present statistical analyses of their findings. Alternatively, Wood 2019 suggested that universal UDS in a low-risk population is not a cost-effective way to detect maternal drug use.[116] These papers were judged to be low quality due to a

substantial amount of missing data[118] and poor study design[116] including single group cohorts.[115,117]

Given the mixed findings, high risk of harm, and that, in the experience of the expert committee, universal screening is often implemented in biased ways, the committee recommends that drug testing recommendations for pregnant patients should be patient specific, considering each patient's potential benefits and risks. Clinicians should be aware of the adverse legal and social consequences of detecting substance use among pregnant women. They should familiarize themselves with local and state reporting requirements before conducting a drug test and relay this information to their patients before conducting a drug test.

Our systematic review identified seven papers on risk-based UDS in pregnant patients.[94,119-124] These seven papers evaluated the usefulness of different indications for UDS during pregnancy to identify substance use. The list of included indications varied across studies. History of cannabis use was not a good predictor of other substance use in two retrospective studies.[119,120] The committee anecdotally noted that isolated cannabis use does not typically result in other substances being identified in UDS. Five of these papers found that history of substance use (including tobacco use) was associated with a positive UDS.[94,119,121,122,124] Obstetrical factors (eg, placental abruption) tended not to be predictive.[94,121,123] Two papers reported a positive relationship between limited prenatal care and a positive UDS,[94,124] while one did not find a relationship.[119] Lastly, Son 2018 reported a positive relationship with *no* prenatal care and a positive UDS.[121] The committee noted that fear of drug testing and its consequences may lead patients with SUD to avoid prenatal care, increasing risks for the maternal-fetal dyad.

Three qualitative studies consistently found that pregnant and post-partum individuals who used substances were afraid of attending prenatal appointments for fear of legal consequences such as being reported to the child welfare agency for substance use and overall fear of identification of substance use.[125-127] Many clinicians are unaware of the outcomes for the maternal-fetal dyads that were reported under mandatory reporting policies while others may be conflicted about reporting pregnant patients.[128,129] The committee anecdotally noted that medications for OUD (i.e., buprenorphine or methadone) may be misinterpreted as a positive opioid UDS in some cases and may inappropriately trigger child welfare reporting. The committee also questioned the need to obtain a UDS when substance use is self-reported.

Recent systematic reviews identified racial and ethnic disparities in the use of UDS for pregnant patients.[130,131] Black mothers are more likely to be drug tested during pregnancy,[92,132] and at delivery,[93-96] for the indication of cannabis use,[119,120] and for other non-substance use history indications such as pregnancy complications (eg, abruption, hypertension, preterm labor).[123] Both American Indian/Alaska Native (AI/AN) and Hispanic mothers were also more likely to have a UDS at delivery for the indication of cannabis use.[120] Native Hawaiian or Pacific islander, Hispanic, and other non-White patients are more likely to be tested at delivery.[94,95,122] These

studies were retrospective and prospective cohort and cross-sectional in study design and thus cannot establish causality for these relationships.

Our literature search identified three papers that utilized a standardized protocol to increase equity in drug testing during pregnancy.[133-135] Two of these papers identified that standardized protocols may help reduce disparities in UDS and child welfare reporting.[134,135] However, the third paper suggested that a standardized protocol may not reduce disparities in child welfare reporting, as they found no changes in child welfare reporting after the protocol was implemented as compared to hospitals that did not implement the protocol.[133] The committee limitations of standardized protocols and recommended clinicians carefully consider the indicators for testing with attention to the potential for biased application and related harms. See the *Health Equity* section for further discussion.

Multiple national guidelines recommend that clinicians obtain informed consent before drug testing during pregnancy.[136-138] One study found that consent for UDS was not commonly documented at the time of delivery, however having a formal consent policy did improve the likelihood of documenting consent.[139]

Infant Drug Testing

The systematic review identified two papers comparing maternal UDS to infant drug testing (i.e., meconium or umbilical cord blood testing).[140,141] However, the papers had mixed results; Bailey 2024 sought the best method to detect infants with NOWS, while Gersch 2023 assessed maternal UDS versus umbilical cord testing.[140,141] The committee noted that non-urine tests have a much longer process time, and results may not be back before the infant is discharged. Both studies had a low certainty of evidence, and neither provided a clear answer to the best testing matrix. The committee noted that there may sometimes be discrepancies between maternal and infant UDS due to metabolism, differences in matrices, and differences in types of testing.

Drug testing in an infant may have some clinical utility, such as when an infant is not responding to treatment. The committee emphasized that drug testing should not be used as a proxy for infant safety; evaluating the safety of the home is separate from understanding parental substance use or SUD.

Meconium drug testing is commonly required by child welfare agencies. These tests typically detect drug use in the second and third trimesters and cannot differentiate between remote (e.g., months ago) and recent use. It is important for clinicians to understand the limitations of this test matrix and to share evidence of the patient's treatment progress with the child welfare agency when applicable and permissible. Clinicians may also recommend urine drug testing during the third trimester if the patient expects a positive meconium test and wishes to document expected drug test results (i.e., negative for illicit substance use, positive for medication metabolites). A series of expected UDS results during the final months of pregnancy can be one piece of data to reflect how the mother is doing overall with her SUD recovery.

Evidence suggests drug testing and consequences are inequitably applied to non-White newborns. Black and other non-White newborns were more likely to have a drug test at birth, as compared to White newborns.[123,142] Similarly, Black and AI/AN newborns were more likely to be referred to child welfare, as compared to White newborns following a positive drug test.[24,100,143] See the *Health Equity* section for further discussion.

Justice-Involved Individuals

Drug testing is commonly applied in carceral settings and community corrections for both clinical and correctional purposes. This Consensus Statement is focused on the clinical application of drug testing. Drug testing for correctional purposes is outside of the scope of this document. However, drug testing justice-involved individuals for healthcare purposes is in scope.

Standards of care for the management of SUD do not differ for justice involved patients. However, these patients often have unique risks for harm that should be considered when recommending drug testing. It is important for clinicians to understand these risks and educate justice-involved patients about the limitations of confidentiality, and when test results may be shared with outside entities without consent.

Four studies examined the relationship between the frequency of drug testing and substance use and functional outcomes such as employment, education, and criminal behavior across prison, probation, and parole populations.[144-147] However, the outcomes evaluated in these studies largely focused on non-clinical outcomes (eg, prison safety, recidivism), and, in many cases it was unclear whether drug testing was conducted for custodial testing versus clinical purposes. As such they had limited utility for the purpose of this Consensus Statement.

Sometimes clinicians are asked to share test results with outside entities, such as social services agencies or the criminal justice system. The expert committee recommended clinicians keep test results confidential to the extent permitted by law and use caution when sharing test results with outside entities. Clinicians should ensure that the patient has given informed consent for sharing test results unless disclosure is required by law. Even when patients have authorized the release of test results, clinicians should be mindful of the potential consequences. Unexpected positive test results should be confirmed with a confirmatory test, although it may be appropriate to share presumptive results when they are negative. When sharing presumptive test results, clinicians should ensure that they are clearly labeled “presumptive.” Clinicians should report clinical progress along with test results. Clinicians may also have a role in helping probation and parole officers accurately interpret drug test results.

There are significant racial and ethnic disparities in technical violations of probation and parole, resulting in reincarceration. It is currently unknown how inequitable drug testing may contribute to these disparities.[151]

Adolescents

This Consensus Statement is focused on the clinical application of drug testing. School based drug testing is outside the scope of this document. The general principles of clinical drug testing for adolescents are the same as those for adults. However, there are some important factors with this population that deserve unique consideration before deciding when and how to drug test an adolescent.

Two studies in the systematic review included adolescents. The first assessed substance use frequency in adolescents who were in and out of treatment throughout a 9-month period.[152] Every 3 months, adolescents were grouped into one of four groups (residential, outpatient, biological testing only, or no treatment), depending on the program they were in during the 3-month period. Drug testing (without additional outpatient or residential treatment) decreased substance use frequency, as compared to no treatment. The second assessed opinions on drug screening and compared self-reported substance use to drug test results.[34] Adults were more likely than adolescents to agree with the statement "drug testing is an effective way to prevent drug use in addiction treatment." Adolescents were more likely than adults to self-report their use during treatment. Data related to concordance of self-report and drug test results were pooled across adults and adolescents, and thus not reported for adolescents alone. The expert committee concluded that while the findings suggest some usefulness in monitoring after treatment, these studies lack sufficient data to inform proper drug testing practices in adolescents.

As with adult patients, drug testing services may be appropriate to support an adolescent's individual treatment plan as needed. Clinicians should consider the potential benefits and risks for the adolescent when recommending drug testing.

The American Academy of Pediatrics cautions against involuntary drug testing in adolescents. In their recommendation on *Testing for Drugs of Abuse in Children and Adolescents,* they state[153]:

> Voluntary drug testing may be a useful part of an assessment when a parent, clinician, or other adult suspects recent or ongoing drug use on the basis of observed symptoms. Like any other laboratory procedure, drug testing should be an adjunct to a thorough history rather than a replacement. In cases in which an adolescent denies use, a positive drug test result may afford an opportunity to begin an honest conversation.

When there is concern for substance use or SUD in an adolescent, clinicians can use drug testing as part of a SUD assessment. However, as with adults, drug testing of adolescents should not be

used in isolation; it should be considered in the full context of their self-reported use, clinical presentation, collateral information, and functioning.

Adolescent Consent and Confidentiality

Drug testing adolescent patients without their assent or consent is not appropriate, except in emergency situations (e.g., accidents, suicide attempts, and seizures) when the test results may inform immediate clinical decision making. If an adolescent refuses to consent to a drug test, the clinician should clearly document refusal and continue to evaluate the possibility of SUD through other methods and refer the patient to a specialist with additional mental health or substance use expertise.

As discussed in the Adolescent and Transition Aged Youth volume of *The ASAM Criteria*[154]:

> Confidentiality around drug testing is often a challenging area in adolescent SUD treatment. Adolescents may be reticent to consent to drug testing if their family may have access to test results, and families may be unhappy if they do not have access to this information. As with all adolescent health information, specific requirements vary across states. Clinicians should have discussions with patients and families before drug testing to outline who will have access to test results, establishing clear expectations at the outset. Even when state regulations do not require adolescent consent, clinicians should seek adolescents' assent, explaining how drug testing will be used to guide their treatment.

Privacy and confidentiality of adolescent health information are governed by both federal and state regulations.[30,155] For adolescent health records, federal privacy regulations (i.e., the Health Insurance Portability and Accountability Act [HIPAA and 42 CFR Part 2) generally align with state laws such that if a minor has legal authority in their state to obtain SUD treatment without parent/guardian consent, the minor's consent is required to share their health information for purposes other than treatment, payment, and operations under HIPAA, including with their parents/guardians. However, the reality is more complex. Most adolescents cannot afford treatment without family support or health insurance, and parents/guardians often have access to their adolescent's healthcare information through payer documentation and/or healthcare portals.

Before drug testing, clinicians should ask the adolescent for permission to share the results with parents/guardians and discuss confidentiality with both patients and caregivers to encourage family system involvement. These discussions should include the limits of confidentiality, including mandatory reporting requirements; information that may be shared or accessible to caregivers without the adolescent's consent; and information that will not be shared with caregivers. If an adolescent declines to share drug test results, the clinicians should not share them unless mandated to do so (i.e., due to an acute risk of harm to the patient or others).

Home testing

Because of a variety of limitations with home drug testing process and interpretation, clinicians should recommend against caregivers using home drug tests to screen their children for substance use unless approved and overseen by a clinician, emphasizing that only trained clinicians can accurately interpret test results.

Patient Voice

Research suggests that patients' perception of drug testing as either therapeutic or punitive depends strongly on the level of trust within the clinical relationship.[3] As such, it is important to consider patient voices when implementing drug testing. ASAM convened a Patient Panel with representatives who provided input throughout the development of this Consensus Statement (see *Methodology*).

The Patient Panel emphasized that drug testing can set up a paternalistic environment that undermines patient dignity. As such, it can damage the trust between patients and clinicians because it does not reflect that patient autonomy is valued. They discussed experiences where it was clear to them that drug testing results were not used to meaningfully impact their SUD treatment and emphasized the need for drug testing to only be used to meaningfully inform clinical decision making. The Patient Panel also noted that they are skeptical of research that seems designed to find benefits of drug testing rather than exploring associated harms.

For pregnant and parenting patients, the Patient Panel noted that drug testing is a deterrent from participation in healthcare at all due to the implications for child custody or criminal legal involvement which can have generational impacts on that family. They highlighted that clinicians should consider conducting tests that are specific for methadone and buprenorphine and their metabolites instead of more general opioid panels to prevent a patient's MOUD compliance from triggering child welfare involvement. Critically, clinicians interpreting drug test results in non-SUD treatment settings (eg, hospitals, EDs, and prenatal care settings) should not assume that treatment medications have been accessed through diversion.

The Patient Panel also noted that drug testing can be a deterrent to SUD treatment participation for non-pregnant people as well. They noted that the inequitable application of drug testing in their experiences (eg, for patients on Medicaid) has felt extremely stigmatizing. Patients are aware of their risks related to a positive drug test including:

- loss of freedom for those who are involved in the criminal legal system
- treatment termination for those in facilities that use positive drug tests as a justification for administrative discharge
- loss of methadone take-home dosing for those in OTPs

In some treatment programs, positive drug test results are used to restrict patient privileges. One patient spent 8 months without access to the internet, cell phone, or contact from family members due to cannabis drug test positivity. Patients also emphasized that, in their experience, observed UDS is among the most harmful practices in treatment and that it can feel like a human rights violation. These harms of drug testing contribute to the enormous gap between the number of people with SUD and the number who participate in treatment.

The Patient Panel also noted that drug testing can be beneficial when applied in a patient centered way. For example, they noted that if clinicians did not use positive results to make adverse treatment decisions, testing could be used to inform harm reduction efforts. They emphasized that it would be helpful if patients were able to request drug testing as an element of their own treatment journey, particularly confirmatory testing. However, the Patient Panel noted that patients may have to pay for confirmatory testing, which can contribute to socioeconomic disparities in who can advocate for themselves.

The Patient Panel noted that the SUD treatment system seems to be operating on autopilot under the assumption that drug testing is necessary, rather than evaluating the risks and benefits individually for each patient. They encourage clinicians to be thoughtful about its application, including:

- Not using drug test results as a central metric of treatment success, as this undermines patient-centered care
- Giving patients the benefit of the doubt given the reality of false positives and false negatives
- Considering the whole picture of the patient, including improvements in functioning and quality of life
- Being thoughtful about when information is shared (ie, with consent) and what information is shared
    - SUD treatment clinicians should be advocates for their patients, and should share results of drug tests that demonstrate progress (eg, adherence to MOUD) when appropriate

Bibliography

1. Myers B, Da Silva N, McLaughlin S, et al. The relationship between patient-centred care for substance use disorders and patient outcomes: A scoping review. *Int J Drug Policy*. 2025;139:104770. doi:10.1016/j.drugpo.2025.104770
2. Mahon D. A systematic review of trauma informed care in substance use settings. *Community Ment Health J*. 2025;61(4):734-753. doi:10.1007/s10597-024-01395-z
3. van Vredendaal R, Venema S, Kuipers S, Boonstra N, Spoelstra K. Lived Experiences of Urine Drug Testing Among Individuals with a Substance Use Disorder: A Punitive or Supportive Intervention? *Nurs Rep*. 2026;16(2):38. doi:10.3390/nursrep16020038
4. Blum K, Han D, Femino J, et al. Systematic evaluation of "compliance" to prescribed treatment medications and "abstinence" from psychoactive drug abuse in chemical dependence programs: data from the comprehensive analysis of reported drugs. *PLoS One*. 2014;9(9):e104275. doi:10.1371/journal.pone.0104275
5. Hammett-Stabler CA, Pesce AJ, Cannon DJ. Urine drug screening in the medical setting. *Clin Chim Acta*. 2002;315(1-2):125-135. doi:10.1016/s0009-8981(01)00714-8
6. Hadland SE, Levy S. Objective testing: urine and other drug tests. *Child Adolesc Psychiatr Clin N Am*. 2016;25(3):549-565. doi:10.1016/j.chc.2016.02.005
7. Kale N. Urine drug tests: ordering and interpreting results. *Am Fam Physician*. 2019;99(1):33-39.
8. Moeller KE, Kissack JC, Atayee RS, Lee KC. Clinical interpretation of urine drug tests: what clinicians need to know about urine drug screens. *Mayo Clin Proc*. 2017;92(5):774-796. doi:10.1016/j.mayocp.2016.12.007
9. Huizinga JL, Oshman L, Onishchenko R, et al. "Treating me like a criminal": A qualitative study of birthing parents' perspectives on racism and biases in newborn drug testing for substance exposure during pregnancy. *J Subst Use Addict Treat*. 2025;176:209745. doi:10.1016/j.josat.2025.209745
10. Kolla BP, Callizo GL, Schneekloth TD. Utility of urine drug testing in outpatient addiction evaluations. *J Addict Med*. 2019;13(3):188-192. doi:10.1097/adm.0000000000000477
11. Stellpflug SJ, Cole JB, Greller HA. Urine drug screens in the emergency department: The best test may be no test at all. *J Emerg Nurs*. 2020;46(6):923-931. doi:10.1016/j.jen.2020.06.003
12. Srebnik DS, McDonell MG, Ries RK, Andrus G. Conflicts among CMHC clinicians over the role of urine drug testing. *Psychiatr Serv*. 2014;65(5):700-701. doi:10.1176/appi.ps.201300489
13. McEachern J, Adye-White L, Priest KC, et al. Lacking evidence for the association between frequent urine drug screening and health outcomes of persons on opioid agonist therapy. *Int J Drug Policy*. 2019;64:30-33. doi:10.1016/j.drugpo.2018.08.006
14. Chua I, Petrides AK, Schiff GD, et al. Provider misinterpretation, documentation, and follow-up of definitive urine drug testing results. *J Gen Intern Med*. 2020;35(1):283-290. doi:10.1007/s11606-019-05514-5
15. Jaffe A, Molnar S, Williams N, et al. Review and recommendations for drug testing in substance use treatment contexts. *J Reward Defic Syndr Addict Sci*. 2016;2(1):28-45. doi:10.17756/jrdsas.2016-025
16. Saitman A. Clinical drug testing supporting patients with substance use disorder: a review. *J Appl Lab Med*. 2025;10(5):1311-1326. doi:10.1093/jalm/jfaf069

17. Jarvis M, Williams J, Hurford M, et al. Appropriate use of drug testing in clinical addiction medicine. *J Addict Med*. 2017;11(3):163-173.
18. Barnett BS, Chai PR, Suzuki J. Scaling up point-of-care fentanyl testing - a step forward. *N Engl J Med*. 2023;389(18):1643-1645. doi:10.1056/NEJMp2308525
19. Thompson E, Tardif J, Ujeneza M, et al. Pilot findings on the real-world performance of xylazine test strips for drug residue testing and the importance of secondary testing methods. *Drug Alcohol Depend Rep*. 2024;11:100241. doi:10.1016/j.dadr.2024.100241
20. Zhu DT, Palamar JJ. Responding to medetomidine: clinical and public health needs. *Lancet Reg Health Am*. 2025;44:101053. doi:10.1016/j.lana.2025.101053
21. Walter KN, Petry, N.M. Motivation and contingency management treatments for substance use disorders. In: Simpson, E., Balsam, P. (eds). *Behavioral Neuroscience of Motivation Current Topics in Behavioral Neurosciences*. Vol 27. Springer, Cham; 2015.
22. Theisen J, Weinstein ZM, Davoust M, et al. Patient and provider perspectives on the elimination of urine drug testing in office-based addiction treatment. *Subst Use Addctn J*. 2026;47(1):144-152. doi:10.1177/29767342251360850
23. Reichert J, Weisner L, Otto HD. A study of drug testing practices in probation. Chicago, IL: Illinois Criminal Justice Information Authority.2020.
24. Karvonen KL, Anunwah E, Chambers Butcher BD, et al. Structural racism operationalized via adverse social events in a single-center neonatal intensive care unit. *J Pediatr*. 2023;260:113499. doi:10.1016/j.jpeds.2023.113499
25. Vayr F, Herin F, Jullian B, Soulat JM, Franchitto N. Barriers to seeking help for physicians with substance use disorder: A review. *Drug Alcohol Depend*. 2019;199:116-121. doi:10.1016/j.drugalcdep.2019.04.004
26. Cazalis A, Lambert L, Auriacombe M. Stigmatization of people with addiction by health professionals: Current knowledge. A scoping review. *Drug Alcohol Depend Rep*. 2023;9:100196. doi:10.1016/j.dadr.2023.100196
27. Keary CJ, Wang Y, Moran JR, Zayas LV, Stern TA. Toxicologic testing for opiates: understanding false-positive and false-negative test results. *Prim Care Companion CNS Disord*. 2012;14(4):PCC.12f01371. doi:10.4088/PCC.12f01371
28. Meyerson BE, Russell DM, Kichler M, Atkin T, Fox G, Coles HB. I don't even want to go to the doctor when I get sick now: Healthcare experiences and discrimination reported by people who use drugs, Arizona 2019. *Int J Drug Policy*. 2021;93:103112. doi:10.1016/j.drugpo.2021.103112
29. Confidentiality of substance use disorder patient records. 42 CFR § 290dd-2 82 FR 6115 (2017). Accessed March 31, 2026. https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-2
30. Sharko M, Jameson R, Ancker JS, Krams L, Webber EC, Rosenbloom ST. State-by-state variability in adolescent privacy laws. *Pediatrics*. 2022;149(6):e2021053458. doi:10.1542/peds.2021-053458
31. Bharat C, Webb P, Wilkinson Z, et al. Agreement between self-reported illicit drug use and biological samples: a systematic review and meta-analysis. *Addiction*. 2023;118(9):1624-1648. doi:10.1111/add.16200
32. Akosile W, McDermott BM. Use of the urine drug screen in psychiatry emergency service. *Australas Psychiatry*. 2015;23(2):128-131. doi:10.1177/1039856214568213

33. Kroll DS, Smallwood J, Chang G. Drug screens for psychiatric patients in the emergency department: evaluation and recommendations. *Psychosomatics*. 2013;54(1):60-66. doi:10.1016/j.psym.2012.08.007
34. Vakili S, Currie S, el-Guebaly N. Evaluating the utility of drug testing in an outpatient addiction program. *Addict Disord Their Treat*. 2009;8(1):22-32. doi:10.1097/ADT.0b013e318166efc4
35. Ruglass LM, Shevorykin A, Zhao Y, et al. Self-report and urine drug screen concordance among women with co-occurring PTSD and substance use disorders participating in a clinical trial: Impact of drug type and participant characteristics. *Drug Alcohol Depend*. 2023;244:109769. doi:10.1016/j.drugalcdep.2023.109769
36. Bastien G, Abboud A, McAnulty C, et al. Concordance between urine drug screening and self-reported use in the context of a pragmatic randomized-controlled trial in people with prescription-type opioid use disorder. *Can J Psychiatry*. 2026;71(1):41-52. doi:10.1177/07067437251367180
37. van den Berg JJ, Adeyemo S, Roberts MB, et al. Comparing the validity of self-report and urinalysis for substance use among former inmates in the Northeastern United States. *Subst Use Misuse*. 2018;53(10):1756-1761. doi:10.1080/10826084.2018.1432646
38. Wilcox CE, Bogenschutz MP, Nakazawa M, Woody G. Concordance between self-report and urine drug screen data in adolescent opioid dependent clinical trial participants. *Addict Behav*. 2013;38(10):2568-2574. doi:10.1016/j.addbeh.2013.05.015
39. McEvoy A, Rodrigues M, Dennis BB, et al. Do we need urine drug screens in opioid addiction treatment: An observational study on self-report versus urine drug screens. *Addict Behav Rep*. 2025;21:100575. doi:10.1016/j.abrep.2024.100575
40. Tourangeau R, Smith, T.W. Asking sensitive questions: The impact of data collection mode, question format, and question context. *Public Opin Q*. 1996;60(2):275-304.
41. O'Reilly JM, Hubbard ML, Lessler JT, Biemer PP, Turner CF. Audio and video computer-assisted self interviewing: Preliminary tests of new technologies for data collection. *J Off Stat*. 1994;10(2):197-214.
42. Butler SF, Villapiano A, Malinow A. The effect of computer-mediated administration on self-disclosure of problems on the addiction severity index. *J Addict Med*. 2009;3(4):194-203. doi:10.1097/ADM.0b013e3181902844
43. Kumar PC, Cleland CM, Gourevitch MN, et al. Accuracy of the Audio Computer Assisted Self Interview version of the Alcohol, Smoking and Substance Involvement Screening Test (ACASI ASSIST) for identifying unhealthy substance use and substance use disorders in primary care patients. *Drug Alcohol Depend*. 2016;165:38-44. doi:10.1016/j.drugalcdep.2016.05.030
44. Stefanidou M, Athanaselis S, Spiliopoulou C, Dona A, Maravelias C. Biomarkers of opiate use. *Int J Clin Pract*. 2010;64(12):1712-1718. doi:10.1111/j.1742-1241.2010.02373.x
45. O'Callaghan ME, Regan L, Wilson M, et al. Acceptability and accuracy of oral fluid drug testing for patients on methadone maintenance. *Ir J Med Sci*. 2020;189(2):557-561. doi:10.1007/s11845-019-02106-4
46. Dupouy J, Dassieu L, Bourrel R, et al. Effectiveness of drug tests in outpatients starting opioid substitution therapy. *J Subst Abuse Treat*. 2013;44(5):515-521. doi:10.1016/j.jsat.2012.11.006
47. Morin KA, Dabous JR, Vojtesek F, Marsh D. Evaluating the association between urine drug screening frequency and retention in opioid agonist treatment in Ontario, Canada: a

retrospective cohort study. *BMJ Open*. 2022;12(10):e060857. doi:10.1136/bmjopen-2022-060857
48. Lyle V, Harris S, Heidari O, et al. Association between high-threshold practices and buprenorphine treatment termination. *Int J Drug Policy*. 2024;124:104318. doi:10.1016/j.drugpo.2024.104318
49. Michener PS, Knee A, Wilson D, Boama-Nyarko E, Friedmann PD. Association of random and observed urine drug screening with long-term retention in opioid treatment programs. *Drug Alcohol Depend*. 2024;255:111067. doi:10.1016/j.drugalcdep.2023.111067
50. Mallya A, Purnell AL, Svrakic DM, et al. Witnessed versus unwitnessed random urine tests in the treatment of opioid dependence. *Am J Addict*. 2013;22(2):175-177. doi:10.1111/j.1521-0391.2013.00326.x
51. Hartford RJ, Kleber HD. Comparative validity of random-interval and fixed-interval urinalysis schedules. *Arch Gen Psychiatry*. 1978;35(3):356-359.
52. Patel H, Easterbrook B, Ralston FA, et al. Increased prevalence of childhood complex trauma in comorbid posttraumatic stress disorder and substance use disorders compared to either disorder alone: a systematic review. *Early Interv Psychiatry*. 2025;19(5):e70051. doi:10.1111/eip.70051
53. Substance Abuse and Mental Health Services Administration. Trauma-Informed Care in behavioral health services. Treatment Improvement Protocol (TIP) Series 57. HHS Publication No. (SMA) 13-4801. Rockville, MD: Substance Abuse and Mental Health Services Administration,2014.
54. Khatri UG, Aronowitz SV. Considering the harms of our habits: The reflexive urine drug screen in opioid use disorder treatment. *J Subst Abuse Treat*. 2021;123:108258. doi:10.1016/j.jsat.2020.108258
55. Tofighi B, Williams AR, Chemi C, Suhail-Sindhu S, Dickson V, Lee JD. Patient Barriers and Facilitators to Medications for Opioid Use Disorder in Primary Care. *Subst Use Misuse*. 2019;54(14):2409-2419. doi:10.1080/10826084.2019.1653324
56. Strike C, Rufo C. Embarrassing, degrading, or beneficial: Patient and staff perspectives on urine drug testing in methadone maintenance treatment. *J Subst Use*. 2010;15(5):303-312. doi:10.3109/14659890903431603
57. Vigilant LG. The Stigma Paradox in Methadone Maintenance: Naïve and Positive Consequences of a "Treatment Punishment" Approach to Opiate Addiction. *Humanity Soc*. 2004;28(4):403-418. doi:https://doi.org/10.1177/016059760402800404
58. Kirsh KL, Baxter LE, Rzetelny A, Mazuk M, Passik SD. A survey of ASAM members' knowledge, attitudes, and practices in urine drug testing. *J Addict Med*. 2015;9(5):399-404. doi:10.1097/ADM.0000000000000146
59. Bolívar HA, Klemperer EM, Coleman SRM, DeSarno M, Skelly JM, Higgins ST. Contingency management for patients receiving medication for opioid use disorder: a systematic review and meta-analysis. *JAMA Psychiatry*. 2021;78(10):1092-1102. doi:10.1001/jamapsychiatry.2021.1969
60. Prendergast M, Podus D, Finney J, Greenwell L, Roll J. Contingency management for treatment of substance use disorders: a meta-analysis. *Addiction*. 2006;101(11):1546-1560. doi:https://doi.org/10.1111/j.1360-0443.2006.01581.x
61. DeFulio A, Silverman K. The use of incentives to reinforce medication adherence. *Prev Med*. 2012;55:S86-S94. doi:https://doi.org/10.1016/j.ypmed.2012.04.017

62. DeFulio A, Devoto A, Traxler H, et al. Smartphone-based incentives for promoting adherence to antiretroviral therapy: a randomized controlled trial. *Prev Med Rep*. 2021;21:101318. doi:https://doi.org/10.1016/j.pmedr.2021.101318
63. Goodwin SR, Kirby KC, Salzman MS, Raiff BR. Pragmatic and low-cost contingency management intervention increases buprenorphine treatment engagement: Randomized controlled trial. *Exp Clin Psychopharmacol*. 2026;34(1):68.
64. Pfund RA, Ginley MK, Rash CJ, Zajac K. Contingency management for treatment attendance: A meta-analysis. *J Subst Abuse Treat*. 2022;133:108556. doi:10.1016/j.jsat.2021.108556
65. Fitzsimons H, Tuten M, Borsuk C, Lookatch S, Hanks L. Clinician-delivered contingency management increases engagement and attendance in drug and alcohol treatment. *Drug Alcohol Depend*. 2015;152:62-67. doi:10.1016/j.drugalcdep.2015.04.021
66. Rhodes GL, Saules KK, Helmus TC, et al. Improving on-time counseling attendance in a methadone treatment program: a contingency management approach. *Am J Drug Alcohol Abuse*. 2003;29(4):759-773. doi:10.1081/ada-120026259
67. Burch AE, Rash CJ, Petry NM. Cocaine-using substance abuse treatment patients with and without HIV respond well to contingency management treatment. *J Subst Abuse Treat*. 2017;77:21-25. doi:doi.org/10.1016/j.jsat.2017.03.001
68. Lewis MW, Petry NM. Contingency management treatments that reinforce completion of goal-related activities: participation in family activities and its association with outcomes. *Drug Alcohol Depend*. 2005;79(2):267-271. doi:10.1016/j.drugalcdep.2005.01.016
69. Davis DR, Kurti AN, Skelly JM, Redner R, White TJ, Higgins ST. A review of the literature on contingency management in the treatment of substance use disorders, 2009–2014. *Prev Med*. 2016;92:36-46. doi:https://doi.org/10.1016/j.ypmed.2016.08.008
70. Secades-Villa R, Aonso-Diego G, García-Pérez Á, González-Roz A. Effectiveness of contingency management for smoking cessation in substance users: a systematic review and meta-analysis. *J Consult Clin Psychol*. 2020;88(10):951-964. doi:10.1037/ccp0000611
71. De Crescenzo F, Ciabattini M, D'Alò GL, et al. Comparative efficacy and acceptability of psychosocial interventions for individuals with cocaine and amphetamine addiction: a systematic review and network meta-analysis. *PLOS Medicine*. 2018;15(12):e1002715. doi:10.1371/journal.pmed.1002715
72. Destoop M, Docx L, Morrens M, Dom G. Meta-analysis on the effect of contingency management for patients with both psychotic disorders and substance use disorders. *J Clin Med*. 2021;10(4):616. doi:10.3390/jcm10040616
73. Hand DJ, Ellis JD, Carr MM, Abatemarco DJ, Ledgerwood DM. Contingency management interventions for tobacco and other substance use disorders in pregnancy. *Psychol Addict Behav*. 2017;31(8):907-921. doi:10.1037/adb0000291
74. Brown HD, DeFulio A. Contingency management for the treatment of methamphetamine use disorder: a systematic review. *Drug Alcohol Depend*. 2020;216:108307. doi:https://doi.org/10.1016/j.drugalcdep.2020.108307
75. Davidson RM, Traxler HK, DeFulio A, Redish AD, Royle JA, Gass HP. Contingency management for monosubstance use disorders: systematic review and assessment of predicted versus obtained effects. *J Appl Behav Anal*. 2025;58(1):17-35. doi:https://doi.org/10.1002/jaba.2922

76. Srebnik D, Sugar A, Coblentz P, et al. Acceptability of contingency management among clinicians and clients within a co-occurring mental health and substance use treatment program. *Am J Addict*. 2013;22(5):432-436. doi:10.1111/j.1521-0391.2013.00333.x
77. Getty C-A, Weaver T, Lynskey M, Kirby KC, Dallery J, Metrebian N. Patients' beliefs towards contingency management: target behaviours, incentives and the remote application of these interventions. *Drug Alcohol Rev*. 2022;41(1):96-105. doi:10.1111/dar.13314
78. American Society of Addiction Medicine. Engagement and retention of nonabstinent patients in substance use treatment: Clinical consideration for addiction treatment providers. October 2024. Accessed March 31, 2026. https://www.asam.org/quality-care/clinical-recommendations/asam-clinicalconsiderations-for-engagement-and-retention-of-non-abstinent-patients-in-treatment
79. Jakubowski A, Fox A. Defining low-threshold buprenorphine treatment. *J Addict Med*. 2020;14(2):95-98. doi:10.1097/ADM.0000000000000555
80. Krawczyk N, Allen ST, Schneider KE, et al. Intersecting substance use treatment and harm reduction services: exploring the characteristics and service needs of a community-based sample of people who use drugs. *Harm Reduct J*. 2022;19(1):95. doi:10.1186/s12954-022-00676-8
81. White WL, Scott CK, Dennis ML, Boyle MG. It's time to stop kicking people out of addiction treatment. *Counselor (Deerfield Beach)*. 2005;6(2):12-25.
82. Taylor JL, Johnson S, Cruz R, Gray JR, Schiff D, Bagley SM. Integrating harm reduction into outpatient opioid use disorder treatment settings : Harm reduction in outpatient addiction treatment. *J Gen Intern Med*. 2021;36(12):3810-3819. doi:10.1007/s11606-021-06904-4
83. Eisen JS, Sivilotti ML, Boyd KU, Barton DG, Fortier CJ, Collier CP. Screening urine for drugs of abuse in the emergency department: do test results affect physicians' patient care decisions? *CJEM*. 2004;6(2):104-111. doi:10.1017/s1481803500009064
84. Erdmann A, Werner D, Hugli O, Yersin B. Focused use of drug screening in overdose patients increases impact on management. *Swiss Med Wkly*. 2015;145:w14242. doi:10.4414/smw.2015.14242
85. Fabbri A, Marchesini G, Morselli-Labate AM, et al. Comprehensive drug screening in decision making of patients attending the emergency department for suspected drug overdose. *Emerg Med J*. 2003;20(1):25-28. doi:10.1136/emj.20.1.25
86. Mahoney JD, Gross PL, Stern TA, et al. Quantitative serum toxic screening in the management of suspected drug overdose. *Am J Emerg Med*. 1990;8(1):16-22. doi:10.1016/0735-6757(90)90287-a
87. Murnion BP, Granot R, Day RO. Utility of urine drug screening: a clinical audit. *Emerg Med Australas*. 2007;19(3):246-252. doi:10.1111/j.1742-6723.2007.00922.x
88. Schiller MJ, Shumway M, Batki SL. Utility of routine drug screening in a psychiatric emergency setting. *Psychiatr Serv*. 2000;51(4):474-478. doi:10.1176/appi.ps.51.4.474
89. Perloff MD, R. BM, C. SD, and Kase CS. Urgent neurological symptoms and urine toxicology, an outcomes study. *J Subst Use*. 2018;23(2):211-213. doi:10.1080/14659891.2017.1378745
90. Ali SA, Shell J, Harris R, Bedder M. Naloxone prescriptions among patients with a substance use disorder and a positive fentanyl urine drug screen presenting to the emergency department. *Harm Reduct J*. 2023;20(1):144. doi:10.1186/s12954-023-00878-8

91. Gallagher R, Dangers J, Thornton SL. Do trauma patients with phencyclidine-positive urine drug screens have increased morbidity or mortality? *Am J Emerg Med*. 2016;34(6):1066-1068. doi:10.1016/j.ajem.2016.03.022
92. Izekor I, Lindheim S, Ehrig JC, White RS, Hofkamp MP. Racial disparities in parturient urine drug screening at a Texas level IV maternal care centre: a single-centre retrospective study. *J Obstet Gynaecol Can*. 2024;46(12):102679. doi:10.1016/j.jogc.2024.102679
93. Kunins HV, Bellin E, Chazotte C, Du E, Arnsten JH. The effect of race on provider decisions to test for illicit drug use in the peripartum setting. *J Womens Health (Larchmt)*. 2007;16(2):245-255. doi:10.1089/jwh.2006.0070
94. Ellsworth MA, Stevens TP, D'Angio CT. Infant race affects application of clinical guidelines when screening for drugs of abuse in newborns. *Pediatrics*. 2010;125(6):e1379-e1385. doi:10.1542/peds.2008-3525
95. Cohen S, Nielsen T, Chou JH, et al. Disparities in maternal-infant drug testing, social work assessment, and custody at 5 hospitals. *Acad Pediatr*. 2023;23(6):1268-1275. doi:10.1016/j.acap.2023.01.012
96. Jarlenski M, Shroff J, Terplan M, Roberts SCM, Brown-Podgorski B, Krans EE. Association of race with urine toxicology testing among pregnant patients during labor and delivery. *JAMA Health Forum*. 2023;4(4):e230441. doi:10.1001/jamahealthforum.2023.0441
97. Overbeek DL, Janke AT, Watson CJ, et al. Disparate utilization of urine drug screen nationwide in the evaluation of acute chest pain. *West J Emerg Med*. 2023;24(2):135-140. doi:10.5811/westjem.2022.11.58231
98. Goedel WC, Shapiro A, Cerda M, Tsai JW, Hadland SE, Marshall BDL. Association of racial/ethnic segregation with treatment capacity for opioid use disorder in counties in the United States. *JAMA Netw Open*. 2020;3(4):e203711. doi:10.1001/jamanetworkopen.2020.3711
99. Borton D, Streisel S, Stenger M, Fraser K, Sutton M, Wang YC. Disparities in substance use treatment retention: An exploration of reasons for discharge from publicly funded treatment. *J Ethn Subst Abuse*. 2024;23(4):857-875. doi:10.1080/15332640.2022.2143977
100. Roberts SC, Nuru-Jeter A. Universal screening for alcohol and drug use and racial disparities in child protective services reporting. *J Behav Health Serv Res*. Jan 2012;39(1):3-16. doi:10.1007/s11414-011-9247-x
101. Culbert MH, Bhogadi SK, Hosseinpour H, et al. Predictors of receiving mental health services in trauma patients with positive drug screen. *J Surg Res*. 2024;298:7-13. doi:10.1016/j.jss.2023.12.046
102. Bradner K, Schiraldi V, Mejia N, Lopoo E. More work to do: Analysis of probation and parole in the United States, 2017-2018. Accessed March 30, 2026. https://justicelab.columbia.edu/More-Work-to-Do
103. Desmarais SL, Van Dorn RA, Sellers BG, Young MS, Swartz MS. Accuracy of self-report, biological tests, collateral reports and clinician ratings in identifying substance use disorders among adults with schizophrenia. *Psychol Addict Behav*. 2013;27(3):774-787. doi:10.1037/a0031256
104. Substance Abuse and Mental Health Services Administration. Clinical drug testing in primary care. Technical assistance publication (TAP) 32. HHS Publication No. (SMA) 12-4668. Rockville, MD: Substance Abuse and Mental Health Services Administration,2012.
105. Snozek CLH, Krasowski MD, Colby JM, Johnson-Davis KL, Bruccoleri RE, Melanson SE. ADLM guidance document on laboratory testing for drugs of misuse to support the emergency department. *J Appl Lab Med*. 2026;11(1):155-180. doi:10.1093/jalm/jfaf172

106. Snozek CLH, Yee CI, Bryksin J, et al. Assessing knowledge gaps and educational needs in urine drug test interpretation among health care professionals. *Am J Clin Pathol*. 2025;163(1):69-79. doi:10.1093/ajcp/aqae095
107. Rosenfeld B, Budescu DV, Han Y, Foellmi M, Kirsh KL, Passik SD. Does the perceived accuracy of urine drug testing impact clinical decision-making? *Subst Abus*. 2020;41(1):85-92. doi:10.1080/08897077.2019.1621239
108. Aultman W, Fett J, Lauster C, Muench S, Halalau A. Urine drug test interpretation: an educational program's impact on resident knowledge and comfort level. *MedEdPORTAL*. 2018;14:10684. doi:10.15766/mep_2374-8265.10684
109. Jannetto PJ, Bratanow NC, Clark WA, et al. Executive summary: American Association of Clinical Chemistry laboratory medicine practice guideline-using clinical laboratory tests to monitor drug therapy in pain management patients. *J Appl Lab Med*. 2018;2(4):489-526. doi:10.1373/jalm.2017.023341
110. Durback LF, Scharman EJ, Brown BS. Emergency physicians perceptions of drug screens at their own hospitals. *Vet Hum Toxicol*. 1998;40(4):234-237.
111. Chua IS, Ransohoff JR, Ehrlich O, et al. Laboratory-generated urine toxicology interpretations: a mixed methods study. *Pain Physician*. Mar 2021;24(2):E191-e201.
112. Kwong TC, Magnani B, Moore C. Urine and oral fluid drug testing in support of pain management. *Crit Rev Clin Lab Sci*. 2017;54(6):433-445. doi:10.1080/10408363.2017.1385053
113. U.S. Department of Transportation. Medical Review Officers. Accessed May 4, 2026, https://www.transportation.gov/odapc/mro#:~:text=Overview,I%20%2D%20Problems%20in%20Drug%20Tests
114. American College of Obstetricians and Gynecologists. Policy priorities substance use disorder in pregnancy. Accessed April 1, 2026. https://www.acog.org/advocacy/policy-priorities/substance-use-disorder-in-pregnancy
115. Wexelblatt SL, Ward LP, Torok K, Tisdale E, Meinzen-Derr JK, Greenberg JM. Universal maternal drug testing in a high-prevalence region of prescription opiate abuse. *J Pediatr*. 2015;166(3):582-586. doi:10.1016/j.jpeds.2014.10.004
116. Wood KE, McMillin GA, Krasowski MD. Risk-based newborn drug testing in a setting with a low prevalence of maternal drug use. *Hosp Pediatr*. 2019;9(8):593-600. doi:10.1542/hpeds.2018-0256
117. Haizler-Cohen L, Collins A, Kaplan DM, et al. Universal urine drug screening with rapid confirmation upon admission to labor and delivery. *Am J Perinatol*. 2024;41(11):1512-1520. doi:10.1055/a-2118-2841
118. Klawans MR, Northrup TF, Villarreal YR, et al. A comparison of common practices for identifying substance use during pregnancy in obstetric clinics. *Birth*. 2019;46(4):663-669. doi:10.1111/birt.12426
119. Rubin A, Zhong L, Nacke L, et al. Urine drug screening for isolated marijuana use in labor and delivery units. *Obstet Gynecol*. 2022;140(4):607-609. doi:10.1097/aog.0000000000004930
120. Sarathy L, Chou JH, Lerou PH, et al. Limited utility of toxicology testing at delivery for perinatal cannabis use. *Hosp Pediatr*. 2023;13(4):317-325. doi:10.1542/hpeds.2022-006897
121. Son SL, Guiahi M, Heyborne KD. Historical and clinical factors associated with positive urine toxicology screening on labor and delivery. *Eur J Obstet Gynecol Reprod Biol*. 2018;228:261-266. doi:10.1016/j.ejogrb.2018.07.020

122. Chin JM, Chen E, Wright T, et al. Urine drug screening on labor and delivery. *Am J Obstet Gynecol MFM*. Nov 2022;4(6):100733. doi:10.1016/j.ajogmf.2022.100733
123. Perlman NC, Cantonwine DE, Smith NA. Racial differences in indications for obstetrical toxicology testing and relationship of indications to test results. *Am J Obstet Gynecol MFM*. 2022;4(1):100453. doi:10.1016/j.ajogmf.2021.100453
124. Siegel MR, Cohen SJ, Koenigs K, et al. Assessing the clinical utility of toxicology testing in the peripartum period. *Am J Obstet Gynecol MFM*. 2023;5(7):100963. doi:10.1016/j.ajogmf.2023.100963
125. Roberts SC, Nuru-Jeter A. Women's perspectives on screening for alcohol and drug use in prenatal care. *Womens Health Issues*. 2010;20(3):193-200. doi:10.1016/j.whi.2010.02.003
126. Stone R. Pregnant women and substance use: fear, stigma, and barriers to care. *Health & Justice*. 2015;3(1):2. doi:10.1186/s40352-015-0015-5
127. Woodruff K, Scott KA, Roberts SCM. Pregnant people's experiences discussing their cannabis use with prenatal care providers in a state with legalized cannabis. *Drug Alcohol Depend*. 2021;227:108998. doi:10.1016/j.drugalcdep.2021.108998
128. Jarlenski M, Minney S, Hogan C, Chang JC. Obstetric and pediatric provider perspectives on mandatory reporting of prenatal substance use. *J Addict Med*. 2019;13(4):258-263. doi:10.1097/adm.0000000000000489
129. Zaugg C, Terplan M, Roberts SCM. Clinician views on reporting pregnant and birthing patients who use alcohol and/or drugs to child welfare. *Am J Obstet Gynecol MFM*. 2023;5(10):101109. doi:10.1016/j.ajogmf.2023.101109
130. Lijewski VA, Aldrich H, Straub HL. The impact of social vulnerability on substance use detection practices in pregnancy. *Am J Perinatol*. 2024;41(16):2175-2192. doi:10.1055/s-0044-1782686
131. Choi S, Knopf E, Shim K, et al. Racial disparities in drug toxicology testing among pregnant women & infants: a meta-analysis and systematic review. *Health Aff Sch*. Apr 2026;4(4):qxag079. doi:10.1093/haschl/qxag079
132. Ganetsky VS, Yates B, Salzman M, et al. A retrospective cohort study of disparities in urine drug testing during the perinatal period in an urban, academic medical center. *Matern Child Health J*. 2024;28(8):1395-1403. doi:10.1007/s10995-024-03940-4
133. Roberts SC, Zahnd E, Sufrin C, Armstrong MA. Does adopting a prenatal substance use protocol reduce racial disparities in CPS reporting related to maternal drug use? A California case study. *J Perinatol*. 2015;35(2):146-150. doi:10.1038/jp.2014.168
134. Peterson JA, Koelper NC, Curley C, Sonalkar SR, James AT. Reduction of racial disparities in urine drug testing after implementation of a standardized testing policy for pregnant patients. *Am J Obstet Gynecol MFM*. 2023;5(5):100913. doi:10.1016/j.ajogmf.2023.100913
135. Azimi V, Trammel C, Nacke L, et al. Racial equity in urine drug screening policies in labor and delivery. *JAMA Netw Open*. 2025;8(3):e250908. doi:10.1001/jamanetworkopen.2025.0908
136. American College of Obstetricians and Gynecologists. Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion No. 711. *Obstet Gynecol*. 2017;130(2):e81-e94.
137. Substance Abuse and Mental Health Services Administration. Clinical guidance for treating pregnant and parenting women with opioid use disorder and their infants. HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration,2018.

138. Ecker J, Abuhamad A, Hill W, et al. Substance use disorders in pregnancy: clinical, ethical, and research imperatives of the opioid epidemic: a report of a joint workshop of the Society for Maternal-Fetal Medicine, American College of Obstetricians and Gynecologists, and American Society of Addiction Medicine. *Am J Obstet Gynecol*. Jul 2019;221(1):B5-B28. doi:10.1016/j.ajog.2019.03.022
139. Koenigs KJ, Chou JH, Cohen S, et al. Informed consent is poorly documented when obtaining toxicology testing at delivery in a Massachusetts cohort. *Am J Obstet Gynecol MFM*. 2022;4(4):100621. doi:10.1016/j.ajogmf.2022.100621
140. Bailey BA, Alyson C, Darshan S, Nathaniel J, and Wood D. Which newborns need monitoring for neonatal opioid withdrawal syndrome (NOWS)? Utilization and accuracy of methods to assess pregnancy opioid use. *J Subst Use*. 2024;29(5):875-880. doi:10.1080/14659891.2023.2261054
141. Gersch H, Shah D, Chroust A, Bailey B. Can umbilical cord testing add to maternal urine drug screen for evaluation of infants at risk of neonatal opioid withdrawal syndrome? *J Matern Fetal Neonatal Med*. 2023;36(1):2211706. doi:10.1080/14767058.2023.2211706
142. Schoneich S, Plegue M, Waidley V, et al. Incidence of newborn drug testing and variations by birthing parent race and ethnicity before and after recreational cannabis legalization. *JAMA Netw Open*. 2023;6(3):e232058. doi:10.1001/jamanetworkopen.2023.2058
143. Rebbe R, Mienko JA, Brown E, Rowhani-Rahbar A. Hospital variation in child protection reports of substance exposed infants. *J Pediatr*. 2019;208:141-147. doi:10.1016/j.jpeds.2018.12.065
144. Nguyen H, Midgette G, Loughran T, Zhang Y. Random drug testing in prisons: Does a little testing go a long way? *Criminol Public Policy*. 2021;20(2):329-349. doi:https://doi.org/10.1111/1745-9133.12543
145. Brusman Lovins L, Tillyer MS, Lovins BK, Tillyer R, May T. An empirical approach to a standard practice: drug testing. *Crime Delinq*. 2024;70(8):2017-2042. doi:10.1177/00111287221125389
146. Haapanen R, Britton L. Drug testing for youthful offenders on parole: an experimental evaluation. *Criminol Public Policy*. 2002;1(2):217-244. doi:https://doi.org/10.1111/j.1745-9133.2002.tb00087.x
147. Kilmer B. Does parolee drug testing influence employment and education outcomes? Evidence from a randomized experiment with noncompliance. *J Quant Criminol*. 2008;24(1):93-123. doi:10.1007/s10940-007-9040-4
148. Grommon E, Cox SM, Davidson WS, Bynum TS. Alternative models of instant drug testing: evidence from an experimental trial. *J Exp Criminol*. 2013;9(2):145-168. doi:10.1007/s11292-012-9168-6
149. Lattimore PK, MacKenzie DL, Zajac G, Dawes D, Arsenault E, Tueller S. Outcome findings from the HOPE demonstration field experiment. *Criminol Public Policy*. 2016;15(4):1103-1141. doi:https://doi.org/10.1111/1745-9133.12248
150. Shannon LM, Hulbig SK, Birdwhistell S, Newell J, Neal C. Implementation of an enhanced probation program: evaluating process and preliminary outcomes. *Eval Program Plann*. 2015;49:50-62. doi:10.1016/j.evalprogplan.2014.11.004
151. Russo J, Peterson S, Vermeer MJD, Woods D, Jackson BA. *Reducing Racial and Ethnic Disparities in Technical Violations of Probation or Parole Supervision*. Nov 6, 2023.
152. Griffin BA, Ramchand R, Almirall D, Slaughter ME, Burgette LF, McCaffery DF. Estimating the causal effects of cumulative treatment episodes for adolescents using marginal

structural models and inverse probability of treatment weighting. *Drug Alcohol Depend*. 2014;136:69-78. doi:10.1016/j.drugalcdep.2013.12.017
153. Levy S, Siqueira LM, Committee on Substance Abuse, et al. Testing for drugs of abuse in children and adolescents. *Pediatrics*. 2014;133(6):e1798-e1807. doi:10.1542/peds.2014-0865
154. Waller RC, Gomez-Luna S, Boyle MP, Fortuna LR, Hadland SE, Metz WP, eds. *The ASAM Criteria: Treatment Criteria For Addictive, Substance-Related, and Co-occurring Conditions, Volume 2: Adolescents and Transition-aged Youth*. 4th ed. Hazelden Publishing; 2026.
155. *Confidentiality of Substance Use Disorder Patient Records* 42 CFR §2. Accessed May 4, 2026, https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-2
156. New York State Office of Addiction Services and Supports. OASAS Guidance on Administrative or Involuntary Patient Discharges from Opioid Treatment Programs. New York Office of Addiction Services and Supports. Accessed April 3, 2026. https://oasas.ny.gov/system/files/documents/2024/02/otp-administrative-discharge-guidance.pdf
157. Agency for Healthcare Research and Quality. Methods Guide for Effectiveness and Comparative Effectiveness Reviews. 2018.
158. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71. doi:10.1136/bmj.n71
159. RAND. Delphi Method. Accessed February 9, 2026. https://www.rand.org/topics/delphimethod.html
160. GRADE Working Group. Welcome to the GRADE Working Group. Accessed February 9, 2026. https://www.gradeworkinggroup.org/
161. Sterne JAC, Savovic J, Page MJ, et al. RoB 2: A revised tool for assessing risk of bias in randomised trials. *BMJ*. 2019;366:l4898. doi:10.1136/bmj.l4898
162. Sterne JA, Hernan MA, Reeves BC, et al. ROBINS-I: A tool for assessing risk of bias in non-randomised studies of interventions. *BMJ*. 2016;355:i4919. doi:10.1136/bmj.i4919
163. Scottish Intercollegiate Guidelines Network (SIGN). Methodology checklist 4: Case-control studies. Accessed February 9, 2026. http://www.sign.ac.uk
164. Barker TH, Hasanoff S, Aromataris E, et al. The revised JBI critical appraisal tool for the assessment of risk of bias for analytical cross-sectional studies. *JBI Evid Synth*. 2026;24(3):401-408.
165. Whiting PF, Rutjes AW, Westwood ME, et al. QUADAS-2: A revised tool for the quality assessment of diagnostic accuracy studies. *Ann Intern Med*. 2011;155(8):529-536. doi:10.7326/0003-4819-155-8-201110180-00009

Appendix A. Glossary of Terms

Addiction: A treatable chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite

harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases (see substance use disorder).

Administrative discharge: Staff- or program-directed involuntary termination of treatment services.[156]

Confirmatory testing: In contrast to presumptive testing, testing performed using a method with high sensitivity that is able to identify specific drugs, their metabolites, and/or drug concentrations. Confirmatory testing, sometimes referred to as definitive testing, is likely to take place in a laboratory and each individual test can be expensive. Gas or liquid chromatography combined with mass spectrometry is the gold standard method in confirmatory drug testing. (**See also: Presumptive testing)**

Contingency management: An evidence-based psychosocial intervention in which patients are given tangible rewards to reinforce positive behaviors such as treatment participation or abstinence.

Drug testing: The process of analyzing a biological specimen to check for the presence of chemicals that indicate exposure to selected substances.

Expected drug test results: Drug test findings that align with the patient's self-report or known history. (**See also: Unexpected drug test results)**

False negative: The analytical failure to detect the presence of a drug or drug metabolite that is present in the specimen. A false negative on a screening immunoassay test can be discovered by confirmatory testing using GC-MS or LC-MS/MS testing when these tests are used on samples that have screened negative.

False positive: The reporting of a positive drug or drug metabolite that is not present in the specimen. A false positive on a screening immunoassay test is often discovered by confirmation testing using GC-MS or LC-MS/MS testing. False positives can be caused by cross reactivity, improper or delayed storage, or other changes in the sample.

Fixed testing schedule: A predictable time when drug testing will occur, such as every Monday or every 10 days. (**See also: random testing schedule**)

General healthcare setting: A widely defined term in this document indicating a setting where healthcare is provided that is not primarily an addiction treatment service.

Limit of detection: The lowest concentration of a substance or metabolite that a drug test can reliably detect.

Matrix (matrices): The biological material used for analysis in a drug test. Examples include blood, urine, oral fluid (spit/saliva), hair, nails, sweat, meconium, and breath.

Metabolite: A product of metabolism or metabolic process. Urine drug tests often evaluate the presence of one or more metabolites that can originate from a substance used.

Negative Test Result: The result reported by a test that fails to detect the presence of a target substance in a sample. This can indicate either a complete lack of the drug or drug metabolite or a level below the tests limit of detection or reporting threshold. **(See also: Positive test result, True negative test results, False negative test results, Expected drug test result, Unexpected drug test result)**

Observed urine drug testing: A procedure in which an observer watches a patient urinate into a specimen collection container with the intent of preventing tampering and specimen substitution. As used in this document, observed urine drug testing is not intended to include specimen collection through an external (condom) or Foley catheter in acute care settings.

Positive Test Result: The result reported by a test that detects the presence of a target substance in a sample. (**See also: Negative test result, True positive test results, False positive test results, Expected drug test result, Unexpected drug test result**)

Presumptive Testing: In contrast to definitive testing, testing performed using a method with high sensitivity which establishes preliminary evidence regarding the absence or presence of drugs or metabolites in a sample. The results of presumptive tests are qualitative in that they detect the presence or absence of a particular compound, but not their quantity. Immunoassays are good at identifying true negative samples (high sensitivity) and are therefore well suited for use as a screen to eliminate cases from further analysis. (**See also: Confirmatory testing)**

Quantitative Testing: A quantitative test is one that measures the quantity of a particular compound in a sample. Most chromatography/mass-spectrometry techniques are quantitative; However quantitative information is not always reported.

Random Testing Schedule: A recurring drug testing plan with varying amounts of days between testing that cannot be predicted. A random schedule can eliminate ‘‘safe’’ periods where a patient might choose to use substances without detection. (**See also: Fixed testing schedule**)

Sample/specimen: The biological substrate that is submitted to be tested.

Sample tampering: This term refers to any deliberate attempt to falsify drug test results. Examples of tampering would include dilution of the sample, adulteration through addition of various substances to the sample, or substitution with a sample from another person.

Sensitivity: Also called the ‘‘true positive rate’’ or the ‘‘recall rate’’ in some fields, sensitivity measures the proportion of actual positives which are correctly identified as such (e.g., the percentage of sick people who are correctly identified as having the condition). Sensitivity refers to the likelihood that a given test is able to detect the presence of a drug or metabolite that is actually in the specimen.

Specificity: Measures the proportion of negatives that are correctly identified as such (e.g., the percentage of healthy people who are correctly identified as not having the condition, sometimes called the ‘‘true negative rate’’). Specificity refers to the likelihood that a given test can identify the specific drug or metabolite of interest in the specimen and not to erroneously identify other drugs or metabolites.

Shared decision making: A process in which clinicians work with patients to understand their needs, preferences, and values when making decisions about their care

Trauma-informed care: An approach where the system understands trauma's impact, recognizes its signs, and integrates that knowledge into policies and practices to actively prevent re-traumatization and foster recovery, focusing on safety, trust, choice, collaboration, empowerment, and cultural sensitivity.

True positive drug test result: A positive drug test finding that accurately indicates that the patient providing the sample had a detectable amount of the targeted substance(s) or metabolite(s) in their system when the sample was collected. (**See also: False positive drug test result)**

True negative drug test result: A negative drug test finding that accurately indicates that the patient providing the sample was not exposed to the substance(s) targeted by the test within the window of detection, or the amount remaining in the patient’s system was below the limit of detection. (**See also: False negative drug test result)**

Unexpected drug test result: Drug test findings that do not align with the patient’s self-report or known history. Unexpected test results may occur when a patient is unaware of or chooses not to report all the substances they have taken. They may also reflect false positive or false negative results. (**See also: Expected drug test result)**

Universal drug testing: Screening all patients in a given setting regardless of clinical presentation or risk factors.

Validity testing: A test used to determine if a specimen is adulterated, diluted, substituted, or otherwise invalid.

Window of detection: The range of time that a substance can be detected in a biological sample given the cutoff reporting values for the test being performed. It refers both to the time to detection (time to be absorbed and distributed to sample material) and time to clearance (time to be metabolized/eliminated/excreted). A test conducted before the substance or its metabolites have adequately entered the biological sample reads as negative. Each matrix and analyte has a different window of detection, ranging from minutes to months.

Appendix B. Abbreviations and Acronyms

AAAP - American Academy of Addiction Psychiatry

AANP – American Association of Nurse Practitioners

AAPA – American Academy of Physician Associates

AATOD - American Association for the Treatment of Opioid Addiction

ACAAM - American College of Academic Addiction Medicine

ACEP - American College of Emergency Physicians

ACMT - American College of Medical Toxicology

ACOG - American College of Obstetrics and Gynecology

ACOG - American College of Obstetricians and Gynecologists

ADHD - attention deficit hyperactivity disorder

AHRQ - Agency for Healthcare Research and Quality

AI/AN - American Indian/Alaska Native

AOAAM - American Osteopathic Academy of Addiction Medicine

APA - American Psychiatric Association

ASAM - American Society of Addiction Medicine

ASI - Addiction Severity Index

ASSIST - Alcohol, Smoking, and Substance Involvement Screening Test

CFR - US Code of Federal Regulations

CM - contingency management

COCHS - Community Oriented Correctional Health Services

CPG – clinical practice guideline

CPG-MOS – ASAM's Clinical Practice Guideline Methodology Oversight Subcommittee

CPS - child protective services

DSM-IV - Diagnostic and Statistical Manual of Mental Disorders, 4th Edition

ED - emergency department

FAVOR - Faces and Voices of Recovery

FDA - US Food and Drug Administration

GC-MS - Gas chromatography-mass spectrometry

GCS – Glasgow Coma Scale

HIPAA - Health Insurance Portability and Accountability Act

HIV - human immunodeficiency virus

IA – immunoassay

JBI - JBI Critical Appraisal Tool for cross-sectional surveys

LC-MS/MS - liquid chromatography-tandem spectrometry

MOUD - Medications for Opioid Use Disorder

MRO - Medical Review Officer

NAADAC - National Association for Alcoholism and Drug Abuse Counselors

NAATP – National Association of Addiction Treatment Providers

NASW - National Association of Social Workers

NCCHC – National Commission of Correctional Healthcare

NIDA - National Institute on Drug Abuse

NIH – National Institutes of Health

NOWS - Neonatal Opioid Withdrawal Syndrome

OD – overdose

OTP - Opioid Treatment Program

OUD - opioid use disorder

PCP - Primary Care Physician

PICO - Population, Intervention, Comparator, Outcome framework

PRISMA - Preferred Reporting Items for Systematic reviews and Meta-Analyses standards

PROSPERO - International Prospective Register of Systematic Reviews database

PTSD - post-traumatic stress disorder

PWLE - People with lived experience

QIC - ASAM's Quality Improvement Council

QUADAS - Quality Assessment of Diagnostic Accuracy Studies tool for the quality assessment for diagnostic testing studies

RCT - randomized controlled trial

RoB 2 - Cochrane Risk of Bias 2 tool for randomized trials

ROBINS-I - Cochrane Risk of Bias tool for non-randomized studies

SAMHSA - Substance Abuse and Mental Health Services Administration

SCID - Structured Clinical Interview for DSM-IV disorders

SIGN - Scottish Intercollegiate Guidelines Network (SIGN) Methodology Checklist 3: Cohort Studies

SR - systematic literature review

SUD - Substance Use Disorder

TAP - Technical assistance publication

TIC - Trauma-Informed Care

TIP - Treatment Improvement Protocol

TIP - Treatment Improvement Protocol

UDS - Urine drug screening

UDT - urine drug testing

USU - Urban Survivors Union

VA - US Department of Veterans Affairs

WUDS - witnessed urine drug screens

YPR - Young People in Recovery

Appendix C. Methodology

A systematic literature review (SR) was conducted to establish a foundation of evidence for the recommendations in this Guideline. Methods followed current best practices for systematic reviews from the Agency for Healthcare Research and Quality (AHRQ), including screening and data extraction in duplicate, risk of bias assessment using standardized instruments, and a synthesized narrative summary of findings.[157] In accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) standards, the systematic review was registered prospectively in the International Prospective Register of Systematic Reviews (PROSPERO) database (Identification Number: CRD420250630066).[158]

The SR informed the deliberations of a committee of experts, the expert committee, as they developed consensus statements that consider an intervention's clinical benefits and harms, as well as patient values and preferences. ASAM's QIC and CPG-MOS considered the body of evidence to determine whether to develop a clinical practice guideline (CPG) or Consensus Statement. As evidence was insufficient to support a CPG, a modified Delphi process was used to develop clinical consensus statements.[159] As relatively little research has been published on drug testing, this strategy allowed for the inclusion of guidance in areas with highly limited evidence.

Expert Committee and Patient Panel

Expert Committee Formation and Oversight

ASAM's QIC and CPG-MOS oversaw the development of this Consensus Statement. The QIC, working with a partner medical society (American College of Medical Toxicology- ACMT), oversaw the appointment of clinicians with broad subject matter expertise across addiction medicine and toxicology representing regional and demographic diversity to the expert committee.

Members of the CPG-MOS and ASAM's Ethics Committee reviewed disclosures of interest. No members of the expert committee had high level conflicts of interest in relation to the Clinical Consensus topic.

Patient Panel

ASAM reached out to patient facing organizations (Faces and Voices of Recovery, Young People in Recovery, and Urban Survivors Union) and a QIC member referred several patients, to serve on a panel of individuals with lived and living experience with drug testing (the Patient Panel). The Patient Panel was engaged during the development process, providing input on the following, in parallel with the expert committee:

- Key clinical questions
- Critical and important outcomes
- Recommendation statements
- Full text of the Guideline [in process]

This feedback was considered prior to finalization.

The Patient Panel met separately from the expert committee five times. The initial meeting with the Patient Panel (August 2024) discussed the process and expectation. The second meeting (October 2024) focused on receiving feedback on the key questions and outcomes. The third meeting (March 2025) focused on receiving Patient Panel feedback on the literature review and discussed the timeline. The fourth meeting (November 2025) focused on reviewing the consensus statements draft and the fifth meeting (March 2026) focused on reviewing the consensus statements.

Key Questions and Outcome Development

The objective of the literature review was to evaluate benefits and harms of drug testing for the identification of substance use in medical settings, and the role of drug testing in substance use treatment settings. The scope and key questions were determined in collaboration with the expert committee, CPG-MOS, and QIC. The following key clinical questions were identified to be addressed by the systematic review:

1. In individuals with a clinical suspicion of either substance use or SUD, does drug testing assist in the identification of substance use or SUD and change outcomes?
2. In pregnant individuals, does drug testing improve the identification of substance use or SUD or affect outcomes?
3. In individuals in outpatient SUD treatment settings, how does drug testing affect outcomes?
4. In individuals in residential SUD treatment settings, how does drug testing affect outcomes?
5. In individuals in hospital-based SUD treatment settings, how does drug testing affect outcomes?
6. In incarcerated individuals, how does drug testing affect outcomes?
7. How does the use of drug testing in clinical settings disproportionately affect marginalized populations?

These questions were used to develop a Population, Intervention, Comparator, Outcome (PICO) framework for identifying relevant research literature to answer each of the key clinical questions.

- **Population:** Adult (18 years or older) or adolescent (10 to 17 years) individuals undergoing care in any clinical setting (e.g., primary care, emergency departments, SUD treatment centers). Additional subpopulations for inclusion will be 1) pregnant and 2)

incarcerated individuals. We did not include children under 10 years or workplace drug testing.

- **Intervention:** Drug testing for the purpose of identifying substance use in medical settings. And any intervention that includes drug testing as an active part of SUD treatment in a clinical setting. However, if a study includes drug testing, but there is no clear clinical use, the study will be excluded.
- **Comparator:** No drug testing
- **Outcome:** Substance use, treatment engagement and retention, adverse events, healthcare utilization (e.g., ED visits, hospital admission), and addiction medication.

Literature Review

The following databases were searched during October 2024: EMBASE, PsycINFO, and PubMed. The search was limited to controlled trials, cohort studies with a comparison condition, and systematic reviews of RCTs published in English on January 1, 2013, or later. Articles were reviewed in duplicate for inclusion at the title, abstract, and full-text levels (see Figure C1). Discussion and consensus between two research associates resolved uncertainty about article inclusion. Hand-searching for included publications was also completed. An overview of included articles is included in Table CX.

Table C1. PubMed Search Strategy

Topic	Search String	Number of results	Filters: Human; English language
SUD + Drug Testing	(("drug testing"[Title/Abstract]) OR (substance abuse detection[MeSH Terms])) AND (substance related disorders[MeSH Terms])	4993	1819
Pregnancy + Drug Testing	(pregnan*[Title/Abstract] OR "pregnancy"[MeSH Terms]) AND (substance abuse detection[MeSH Terms] OR "drug testing"[Title/Abstract])	614	223

Health Disparities + Drug Testing	(("drug testing"[Title/Abstract]) OR (substance abuse detection[MeSH Terms])) AND ((((((((Prisoners[MeSH Terms]) OR (Incarceration[MeSH Terms]))) OR (((((((Ethnicity [MeSH terms]) OR (Minority Groups [MeSH terms])) OR (Black or African American [MeSH terms])) OR (Hispanic or Latino [MeSH terms])) OR (Ethnic and Racial Minorities [MeSH terms])) OR (Minority Health [MeSH terms]))))) OR ((Sexual and Gender Minorities [MeSH terms]))) OR ((Rural population [MeSH terms]))) OR (((((Socioeconomic factors [MeSH terms]) OR (Poverty [MeSH terms])) OR (Social class [MeSH terms])) OR (Income [MeSH terms]))))) OR ((Disabled persons [MeSH terms]))) OR (((Healthcare Disparities [MeSH terms]) OR (Health Disparate Minority and Vulnerable Populations [MeSH terms]))))	956	311
Combine searches and remove duplicates		5598	2032

Table C2. PsycINFO Search Strategy

Topic	**Search String**	**Filters applied:** Human & English language
SUD + Drug Testing	S1: TI "drug testing" OR AB "drug testing" S2: TI ("substance use" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "substance use") OR AB ("substance use disorder" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "drug use") Search was (S1 + S2)	223
Pregnancy + Drug Testing	S1: TI "drug testing" OR AB "drug testing" S2: TI ("substance use" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR	10

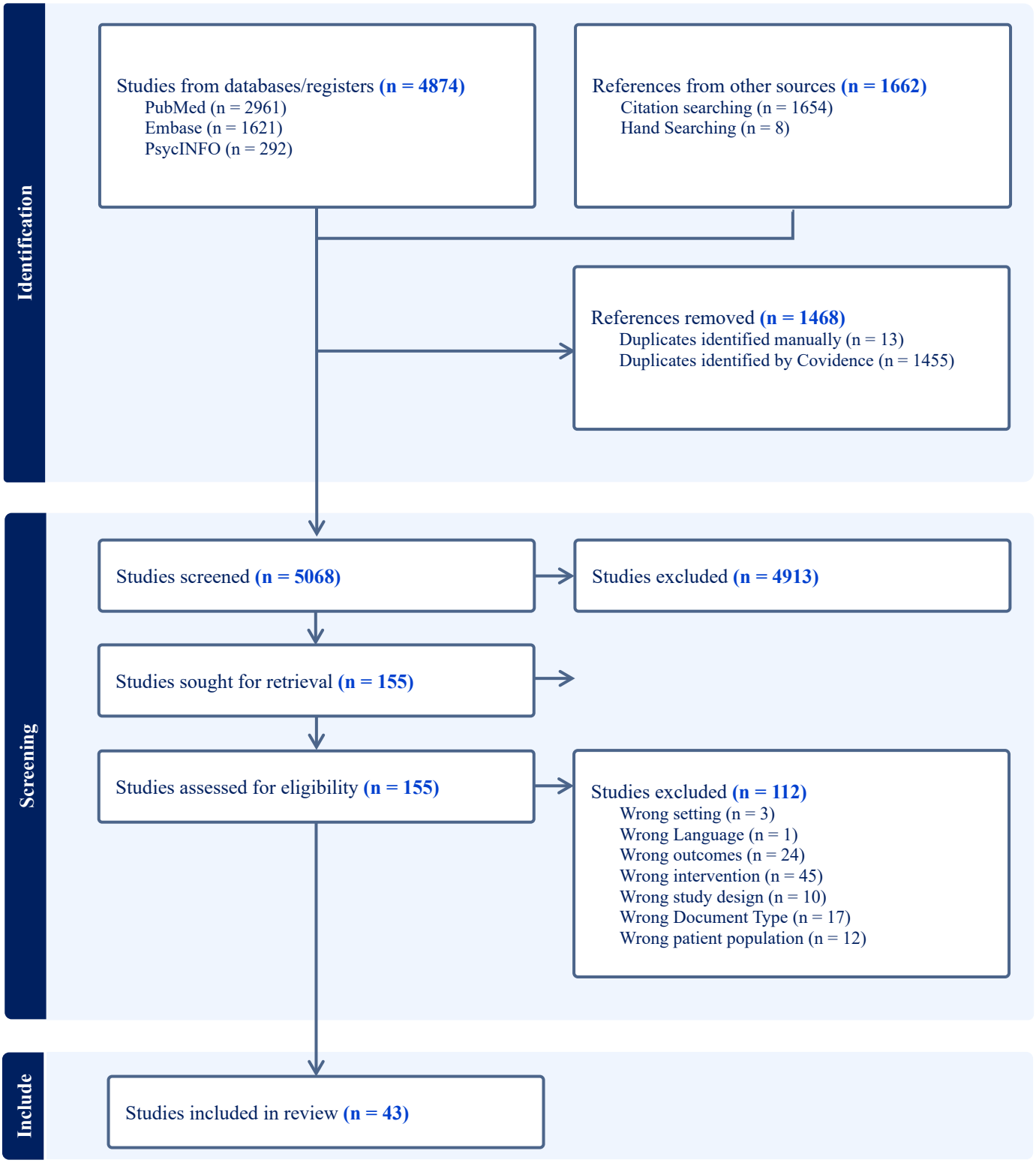
	"substance related disorder" OR "substance use") OR AB ("substance use disorder" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "drug use") S3: TI pregnan# or AB pregnan# Search was (S1 + S2 + S3)	
Incarcerated + Drug Testing	S1: TI "drug testing" OR AB "drug testing" S2: TI ("substance use" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "substance use") OR AB ("substance use disorder" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "drug use") S3: TI (justice OR "drug court" OR delinquen* OR "institutional care" OR offenders OR incarcerated OR correction* OR court OR "legal system" OR prison*) or AB (justice OR "drug court" OR delinquen* OR "institutional care" OR offenders OR incarcerated OR correction* OR court OR "legal system" OR prison*) Search was (S1 + S2 + S3)	36
Health Disparities + Drug Testing	S1: TI "drug testing" OR AB "drug testing" S2: TI ("substance use" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "substance use") OR AB ("substance use disorder" OR "substance dependence" OR addict* OR "drug abuse" OR "drug dependence" OR "opioid use" OR "opioid dependence" OR "alcohol use" OR "alcohol dependence" OR "cannabis use" OR "cannabis dependence" OR "heroin use" OR "heroin dependence" OR "cocaine use" OR "cocaine dependence" OR "methamphetamine use" OR "methamphetamine dependence" OR "substance related disorder" OR "drug use") S3: TI (poverty OR income OR "social class" OR disable# OR rural OR ethnic OR minority OR black OR african OR hispanic OR latin# OR racial	23

	OR asian OR "pacific islander" OR LGBTQ#) OR AB (poverty OR income OR "social class" OR disable# OR rural OR ethnic OR minority OR black OR african OR hispanic OR latin# OR racial OR asian OR "pacific islander" OR LGBTQ#) Search was (S1 + S2 + S3)	

Table C3. EMBASE Search Strategy

Topic	**Search String**	**Number of results**	**Filters applied: Human & English language**
SUD + Drug Testing	(‘drug screening’) AND ('drug dependence' OR 'substance abuse' OR 'alcoholism')	2997	1213
Pregnancy + Drug Testing	('drug screening') AND ('Pregnancy')	2098	438
Health Disparities + Drug Testing	(‘drug screening’) AND ('prisoner' OR 'minority group' OR 'low socioeconomic status' OR 'rural population' OR 'sexual and gender minority' OR 'disabled person')	162	82

Figure C1. PRISMA Chart



Evidence Review

All studies were assessed using the GRADE method and a risk of bias assessment was completed for each included study (n = 43).[160] Quality was rated using the Cochrane Risk of Bias 2 (Rob 2) tool for randomized trials.[161] For observational studies multiple tools were used for different study types. The ROBINS-I and SIGN for observational cohort studies, JBI for cross sectional surveys, and QUADAS for a study on diagnostic testing.[162-165] Studies that had no controls or comparisons were not formally evaluated and given a high risk of bias rating.

The expert committee was provided with key information about study methods, risk of bias ratings, and narrative syntheses of the results for each intervention described in the literature review. However, no evidence rose above low quality so a consensus process was used to develop recommendations. Consensus statements were drafted based on discussions using the evidence and voted on using a modified Delphi method.

Recommendation Development

The expert committee discussed the evidence and potential recommendations. A modified Delphi process was used for developing consensus.

The expert committee voted with one of the following options: agree, disagree, or abstain. Expert committee members were permitted to abstain only if they have a conflict of interest or lack expertise on the topic of the recommendation statement. Level of consensus was calculated as follows:

- 100% consensus was designated as "**Unanimous consensus"**
- >=85% consensus was designated "**Major consensus**"
- >=70-84% consensus was designated "**Moderate consensus"**
- If less than 70% consensus was reached, a recommendation will not be made.

The goal of the consensus process was unanimous consensus. After the initial round of voting, the expert to committee met to discuss areas of disagreement, and additional rounds of voting were conducted as necessary to reach consensus. If, at minimum, moderate consensus was not reasonably achieved through this process, the recommendation was not adopted.

External Review

The Consensus Statement is undergoing an external review process prior to publication. ASAM will invite major stakeholder organizations, partner organizations, relevant committees, and its Board of Directors to provide comments, and work with partner organizations to broadly disseminate a call for public comment. The Patient Panel will also be asked to provide feedback. All comments will be combined into an Excel file and summarized by concern. Together with

ASAM staff, the expert committee will review all comments and update the Consensus Statement as appropriate.

Table C.4Overview of Included studies

Study	Intervention	Comparison	Population	Design	N
KQ1 Identification of Use					
Akosile 2015	Drug Testing	Self-report vs urine drug screen (UDS)	Patients who went to ED, then psychiatric inpatient unit	Retrospective single group cohort with no controls	111
Ali 2023	Drug Testing	All ED visits vs ED visits with Positive UDS for fentanyl	Patients with SUD	Retrospective single group cohort with statistical controls	6,787
Desmarais 2013	Drug Testing	Drug Testing Hair, Drug Testing Urine	Adults with schizophrenia who used alcohol or drug	Secondary analysis of an RCT	1,460
Eisen 2004	Drug Testing	Glasgow Coma Scale 15 vs Glasgow Coma Scale <15	Patients in ED who had UDS	Observational Cohort	110
Erdmann 2015	Drug Testing	NA (cohort only)	Patients having a first psychotic episode or patients with respiratory failure, coma, seizures, or severe cardiac symptoms	Retrospective single group cohort with no controls	262
Fabbri 2003	Drug Testing	Screening available vs Not available	Patients with suspected drug OD	Within person randomized experiment	142
Gallagher 2016	Drug Testing	Pos-Phencyclidine (PCP), Pos-drug (not PCP), Neg drug but Pos Alcohol, Neg for both	Level 1 Trauma patients	Retrospective cohort with matched controls	156
Kroll 2013	Drug Testing	Negative UDS, Positive UDS	Patients receiving psych consults	Retrospective single group cohort with statistical controls	439
Mahoney 1990	Drug Testing	None	Patients in the ED with a drug overdose	Retrospective single group	176

Study	Intervention	Comparison	Population	Design	N
				cohort with no controls	
Murnion 2007	Drug Testing	ED vs Hospital inpatient	Hospital inpatients and ED patients	Retrospective single group cohort with no controls	171
Perloff 2018	Drug Testing	UDS Negative vs UDS Positive	Patients who needed a Neuro consult, in the ED	Retrospective cohort with comparison	194
Schiller 2000	Drug Testing	Usual care vs Mandatory screen	Patients attending psychiatric ED	RCT	392
KQ2 Identification of Use, Pregnant individuals					
Azimi 2025	Drug Testing	Pre vs Post policy change	Pregnant women	Retrospective cohort with comparison	9,396
Bailey 2024	Drug Testing	Maternal UDS, Maternal Self-report, Neonatal meconium or cord	Pregnant Women	Retrospective single group cohort with no controls	294
Chin 2022	Drug Testing	People with UDS vs People without UDS; UDS neg vs UDS Pos	Pregnant women	Retrospective single group cohort with statistical controls	6,265
Ellsworth 2010	Race & SES factors	Race, Insurance status	Mother & newborn	Retrospective single group cohort with statistical controls	2,121
Gersch 2023	Drug Testing	Dyads with Pos Maternal UDS vs Dyads w/Pos umbilical cord test vs Dyads with either test Pos vs Dyads with both test Pos	Mother-infant dyads	Retrospective cohort with matched controls	723
Goler 2008	Drug Testing	Screened Pos (assessed & treated) vs Screened Pos (assessed) vs Screened Pos (no assessment) Vs Screened Neg	Pregnant women	Retrospective cohort with comparison	49,985
Haizler-Cohen 2024	Drug Testing	NA (cohort only)	Pregnant Women	Retrospective single group	52

Study	Intervention	Comparison	Population	Design	N
				cohort with no controls	
Klawans 2019	Drug Testing	Physician-ordered UDS vs Universal UDS	Pregnant Women	Prospective single group cohort with no controls	275
Perlman 2022	Race & SES factors	Races, Insurance status	Pregnant or Postpartum women	Retrospective single group cohort with statistical controls	20,274
Peterson 2023	Drug Testing	Races, Insurance status	Pregnant women	Retrospective cohort with comparison	2,699
Roberts 2015	Drug Testing	Intervention hospital vs Comparison hospital	Pregnant women	Interrupted time series with nonequivalent control	46,046
Rubin 2022	Race Factors	Black vs White	Pregnant women	Retrospective cohort with comparison	3,494
Sarathy 2023	Drug Testing	Tested for Cannabis Indication vs Birthing Population	Pregnant women	Retrospective single group cohort with no controls	60,608
Siegel 2023	Drug Testing	NA (cohort only)	Pregnant women	Retrospective single group cohort with no controls	2,036
Son 2018	Drug Testing, Race & SES factors	Race, Insurance status	Pregnant women	Retrospective cohort with comparison	262
Wexelblatt 2015	Drug Testing	NA (cohort only)	Pregnant women	Retrospective single group cohort with no controls	2,956
Wood 2019	Drug Testing	At-Risk Cohort vs No Risk Identified	Newborns	Prospective cohort with comparison	857
KQ3 Outpatient SUD					
Dupouy 2013	Drug Testing	At least one drug test, No drug test	Patients starting opioid agonist treatment	Retrospective cohort with unmatched control group	1,507

Study	Intervention	Comparison	Population	Design	N
Griffin 2014	Drug Testing	Residential vs Outpatient vs Biological Drug Screening vs No treatment	Adolescents who received care for substance use	Secondary analysis	2,870
Kolla 2019	Drug Testing	NA (Cohort only)	Patients presenting for outpatient addiction assessment	Retrospective single group cohort with no controls	174
Lyle 2024	Drug Testing	Prescriber drug tests every visit vs Prescriber does not drug test every visit	Prescribers	Cross-sectional, Survey	377 Clinicians
Mallya 2013	Drug Testing	Pre- Witnessed UDS policy vs Post-Witnessed UDS policy	Patients with SUD	Single group pre-post	115
McKay 2016	Drug Testing	My First Year of Recovery (MyFYR) continuing care	Physicians with SUD	Prospective single group cohort with no controls	198
Michener 2024	Drug Testing	Neither random or observed UDS vs Random only vs Observed only vs Both random and observed UDS	Clinic level analysis (OTPs)	Cross-sectional, Survey	150 OTP clinics
Morin 2022	Drug Testing	UDS frequency: Monthly or less vs Biweekly vs Weekly vs More than weekly	Patients in opioid agonist treatment	Retrospective single group cohort with statistical controls	55,921
Vakili 2009	Drug Testing	All UDS tested vs Half of the UDS tested	Patients with SUD	Mixed-methods	229
KQ4 Residential SUD					
Griffin 2014	Drug Testing	Residential vs Outpatient vs Biological Drug Screening vs No treatment	Adolescents who received care for substance use	Secondary analysis	2,870
KQ6 Incarcerated Individuals					
Haapanen 2002	Drug Testing	(1) No routine testing (parolees were to be tested only after an arrest)	Parolees	RCT (Primary for Kilmer 2008)	1,958

Study	Intervention	Comparison	Population	Design	N
		(2) No routine testing but tested once or twice during Re-entry (3) Once every two months (Bimonthly), with one test a month (4) Once a month (Monthly), with one test every two weeks (5) Once every two weeks (Biweekly), with one test every week (weekly) during re-entry			
Kilmer 2008	Drug Testing	Drug Testing vs No Drug Testing	Parolees	Secondary analysis of RCT (Primary-Haapanen 2002)	1,958
Lovins 2024	Drug Testing	Drug testing frequency	Justice-involved individuals	Dataset (Adult Probation Dept in SW U.S.)	88,964
Nguyen 2021	Drug Testing	NA (cohort only)	Incarcerated individuals	Quasi-experimental	1,080

Abbreviations: ED (Emergency Department); OTP (Opioid Treatment Program); RCT (Randomized Controlled Trial); SES (Social Economic Status); SUD (Substance Use Disorder); UDS (Urine Drug Screen)

Appendix D. Resources

Validated Substance Use Screening and Assessment Tools

Screening and Assessment Tools Chart | NIDA

Educational Resources

Clinical Drug Testing in Primary Care TAP 32 | SAMHSA

StatPearls Clinical Drug Testing | NIH

What the lab can and cannot do | Kapur & Aleska 2020

Urine drug tests: ordering and interpretation | Kale 2019

Contingency Management

Promoting Awareness of Motivational Incentives | NIDA, SAMHSA Blending Initiative

Contingency Management for Substance Abuse Treatment: A Guide to Implementing this Evidence-Based Practice | Nacy Petry

Contingency Management for Adolescent Substance Abuse: A Practitioner's Guide | Henggeler et al

Rash, C. J. (2023). Implementing an evidence-based prize contingency management protocol for stimulant use. *Journal of Substance Use and Addiction Treatment*, 209079.

Appendix E. Disclosures of Interest

A. 2026 Writing Committee Member Relationships with Industry and Other Entities

Guideline Committee Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
Leslie R. Dye, MD, FACMT, FASAM, FACCT	OneFifteen	None	None	None	None	None
Diane Hindman, MD, PharmD, BScPhm, FAAP	HHS/ASPR/BARDA; Phoenix Children's Hospital; University of Arizona Poison and Drug Information Center; Loyal Source Government Services	Expert Witness**	None	None	Arizona State University Southwest Interdisciplinary Research Center (SIRC) Adolescent Treatment Advisory Board	None
Michael A. Incze, MD, MSEd	University of Utah	None	None	None	AMERSA Advocacy Committee; JAMA Internal Medicine	National Institutes of Health; Patient Centered Outcomes Research Institute
Kurt C. Kleinschmidt, MD	The University of Texas Southwestern Medical Center	Expert Witness**	None	Royal Caribbean (stock)	None	Centers for Disease Control and Prevention
Elizabeth E. Krans, MD, MSc	University of Pittsburgh	None	None	None	None	National Institutes of Health; Merck; Gilead
Lewis S. Nelson, MD, MBA (Co-Chair)	Florida Atlantic University	None	None	None	Society for Academic Emergency Medicine Board	None

Guideline Committee Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
Jeanmarie Perrone, MD	Perelman School of Medicine at the University of Pennsylvania	None	None	None	None	Philadelphia Department of Public Health; Office of Public Safety Philadelphia; National Institute on Drug Abuse
Kelly S. Ramsey, MD, MPH, MA, FACP, DFASAM	Kelly S. Ramsey Consulting, LLC	Expert Witness**	None	Kelly S. Ramsey Consulting, LLC**	None	None
Andrew Seaman, MD	Better Life Partners; Oregon Health and Sciences University; Central City Concern	None	None	None	None	None
Evan S. Schwarz, MD, FACEP, FACMT, FASAM (Co-Chair)	University of California Los Angeles	Expert Witness**	None	None	American College of Medical Toxicology Board; American Board of Emergency Medicine	None
Sarah Spencer, DO, FASAM	Ninilchick Traditional Council Community Clinic	Opioids Response Network*	None	None	Homer Alaska Syringe Access Program	None
Silas W. Smith, MD, FACEP, FACMT	New York University Grossman School of Medicine	None	None	None	BMJ Best Practice US Expert Advisory Panel	National Institutes of Health; National Institute on Aging
Jason Wasche, DO, FASAM	California Department of Corrections and Rehabilitation	None	None	None	None	None

The above table presents relationships of the Drug Testing Writing Committee during the past 12 months with industry and other entities. These relationships are current as of the completion of this document and may not necessarily reflect relationships at the time of this document's publication. A relationship is considered to be significant if the individual receives compensation which includes cash, shares, and/or anything else of value including direct ownership of shares, stock, stock options or other interest of 5% more of an entity or valued at $10,000 or more (excluding mutual funds), whichever is greater. A relationship is considered to be modest if it is less than significant under the preceding definition. A relationship is considered to be unpaid if the individual does not receive monetary reimbursement.
** Indicates significant relationship. * Indicates modest relationship.

B. 2026 ASAM Quality Improvement Council Relationships with Industry and Other Entities

Quality Improvement Council Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
Itai Danovitch, MD, MBA, FAPA, DFASAM	Cedars-Sinai Medical Center	None	None	Workit Health*; Bexson Biomedical*	None	None
Michael P. Frost, MD, DFASAM, FACP	Wayspring	Camurus AB**	Braeburn Pharmaceuticals*	None	None	None
Cynthia Vuittonet, MD, FASAM, FACP	Jewish Renaissance Medical Center	None	None	None	None	None

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** Indicates significant relationship. * Indicates modest relationship.

C. 2026 ASAM Board of Directors Relationships with Industry and Other Entities

Board Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
Hamad A. Al Ghafri, MD, MBBS, MPH, PhD	Delmon Consulting and Health Planning	None	None	None	Fakeeh Mental Health Advisory Board	None
Anika Alvanzo, MD, MS, FACP, DFASAM	Health Management Associates; Absolute Care	Uzima Consulting Group, LLC*	None	None	None	None
Nicholas Athanasiou, MD, MBA, DFASAM	Los Angeles County Department of Mental Health	None	None	None	None	None
James W. Berry, MD, FASAM	Northeast Occupational Exchange*	None	None	None	Maine Medical Association	None
Gregory X. Boehm, MD, DFASAM	Psych Services Inc.	None	None	None	None	None
Emily Brunner, MD, DFASAM	Gateway Recovery Center; Hazelden Betty Ford Foundation; Henry Ford Foundation	None	None	None	None	None

Board Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
Niraj Chavan, MD, MPH, FACOG, FASAM	Saint Louis University	None	Vertex Pharmaceuticals*	None	American College of Obstetrics and Gynecology Board of Directors	None
Paula J. Cook, MD, FASAM	Moab Regional Hospital	None	None	None	None	None
Itai Danovitch, MD, MBA, FAPA, DFASAM	Cedars-Sinai Medical Center	None	None	Workit Health*; Bexson Biomedical*	None	None
Alta DeRoo, MD, MBA, FACOG, DFASAM	Hazelden Betty Ford Foundation	None	None	None	None	None
Michael Fingerhood, MD, FACP, DFASAM	Johns Hopkins Bayview Medical Center	None	None	None	None	None
Brian Hurley, MD, MBA, FAPA, DFASAM	Los Angeles County Department of Public Health; Brian Hurley, M.D. Private Practice	Community Health Centers; PsyBAR; APA; AAAP**	None	None	None	None
Lori D. Karan, MD, FACP, DFASAM	VA Healthcare System Loma Linda	None	None	None	None	None
Jason D. Kirby, DO, MBA, DFASAM	Recovery Centers of America	None	None	None	None	None
Marla D. Kushner, DO, FACOFP, FAOAAM, FSAHM, DFASAM	Marla D. Kushner, DO, S.C.	None	None	Marla D. Kushner, DO, S.C	None	None
Nicole Labor, DO, FASAM	Self-Employed	None	Braeburn Pharmaceuticals**	None	None	None
James P. Murphy, MD, DFASAM	Murphy Pain Center	None	None	Murphy Pain Center**	Greater Louisville Medical Society Foundation Board of Directors	None
Debra W. O'Beirne, MD, FASAM	Fairfax Co CSB	None	Gilead*	None	None	None
Cara A. Poland, MD, MEd,	Michigan State University College of Human Medicine	None	None	None	None	None

Board Member	Employment	Consultant	Speakers Bureau	Ownership/ Partnership/Principal	Institutional, Organizational or other financial benefit	Research
FACP, DFASAM						
Surita Rao, MD, FASAM	University of Connecticut School of Medicine	None	None	None	None	None
Stephen M. Taylor, MD, MPH, DFAPA, DFASAM	Pathway Healthcare, LLC	None	None	None	None	None
Kristine Torres-Lockhart, MD, FASAM	Phoenix Houses of New York and Long Island	None	None	None	None	None
Michael F. Weaver, MD, DFASAM	University of Texas Health Science Center at Houston	None	None	None	American Board of Preventive Medicine	University of Texas Health Science Center at Houston; Novo Nordisk
Timothy Wiegand, MD, FACMT, FAACT, DFASAM	University of Rochester School of Medicine and Medical Center	None	None	None	Medical Toxicology Foundation; New York Department of Health Aids Institute*	None

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** Indicates significant relationship. * Indicates modest relationship.