

A Review of Drug Testing Best Practices for Treatment Courts

Paul L. Cary, M.S.

Forensic Toxicology
Consultant

The law is not black and white and neither is science.

There is a substantial gap between the questions that the treatment court community would like to have answered by drug testing and the answers that the science is able to provide.

The danger lies in the treatment court community's failure to understand that this gap exists by continuing to draw unwarranted conclusions and by making consequential adjudication decisions from drug testing results that are not supported by the science.

Yeah, but I've heard this before:

- “Same as last year” “Nothing new”
- 51% of attendees have never been to the national conference
- 26% that have listened to my presentation have forgotten most of it
- 13% wrong session
- 8% were on their phones

Drug Testing Basics

Reasons for Drug Testing - WHY?

- act as a deterrent to future drug use
- identify participants who are maintaining abstinence
- identify participants who have relapsed
 - rapid intervention
 - efficient utilization of limited resources
- provides incentive, support and accountability for participants
- adjunct to treatment & frames sanction decisions

Specimen Choices for Court-Mandated Drug Testing



Drug Testing Specimens

- no perfect specimen
- each specimen has advantages and disadvantages
- each specimen takes a slightly different picture of a participant's drug use behavior
- potential for discrepant results

Multiple Testing Specimens

- adding specimen types often increases frequency of discrepant results
- not because of errors/incorrect results
- both results often correct
- different specimens capture may different drug use detection periods

Specimen of Choice: Urine

- Advantages:
 - sample is generally available in large quantities
 - provides detection for both recent and past usage
 - drug & metabolites are concentrated, easily detectable
 - numerous testing options – Lab-based and on-site testing
 - uniform forensic criteria supported by years of court/legal case law & adjudication
- Disadvantages:
 - invasive “observed” collection procedures required
 - same gender collections
 - specimen is susceptible to tampering
 - drug concentration influenced by fluid intake
 - urine drug levels provide no interpretive data

Breath Testing for Alcohol

▣ Advantages:

- ▣ Portable monitoring device
- ▣ Ease of use
- ▣ Excellent approach for alcohol surveillance
- ▣ Allows monitoring during non-governmental hours
- ▣ Used in the field for unannounced testing

▣ Disadvantages:

- ▣ Pre-test waiting and observation period (up to 20 minutes)
- ▣ Periodic calibration

Sweat Patch Testing

▣ Advantages:

- ▣ ability to monitor 24/7 for extended periods
- ▣ relatively client tamper-proof
- ▣ non-invasive
- ▣ increased deterrent to drug use
- ▣ cross-gender collections

▣ Disadvantages:

- ▣ poor past usage drug detection (prior to patch application)
- ▣ limited collection devices & testing laboratories
- ▣ patch application/removal requires certified collectors
- ▣ limited number of drugs detected
- ▣ no on-site testing

Drug Testing in Hair

- Advantages:

- extended detection period (up to 90 days)
- non-invasive, cross-gender collection
- reduced specimen tampering
- no poppy seed interference

- Disadvantages:

- inability to detect recent drug usage
- limited number of testing facilities
- results difficult to interpret
- no on-site testing
- testing may not detect single drug use event

Hair Testing Scenario

- Participant uses banned substance
Day 1
- Hair collected on Day 14
- Results to court on Day 18 (positive)
- Participant interaction Day 20
- Sanctions/Intervention and
therapeutic effect

Complexity of Hair Result Interpretation:

- detecting the substance in hair is not sufficient to conclude drug use
- hair shafts can be **externally contaminated** by a substance released into the air as a result of smoking
- transferred to the hair via hands contaminated with powder residue from surrounding surfaces
- differentiate between incorporation of drug into the hair as a result of drug **consumption** versus **external/environmental contamination**

Oral Fluids Testing

□ Advantages:

- non-invasive, cross-gender collections
- specimen tampering reduced
- on-site testing available (but not recommended)
- recent advances – extended detection window; more drugs detected

□ Disadvantages:

- short detection window (most drugs 24-hour average)
- limited collection devices & testing facilities
- limited number of drugs detected
- on-site testing devices pose forensic concerns regarding accuracy & reliability

Urine vs. Oral Fluids

DRUG	URINE	ORAL FLUID
OPIATES	2-5 days (300 ng/mL)	12-24 hours (1 ng/mL)
COCAINE as BZE	1-4 days (300 ng/mL)	12-24 hours (1 ng/mL) Up to 48 hrs (chronic)
Amphetamines	2-4 days (500 ng/mL)	1-2 days (100 ng/mL)
Cannabinoids (THC-COOH)	3 - 4 days (50) - single 7 days (20) - single 10 days (50) - heavy 21 days (20) - heavy	8 hours (15) (occasional use) 30 hours (15) (frequent use)
Benzodiazepines (diazepam)	5-8 days (300 ng/mL)	1-2 days (NS ng/mL)

Data from American Society of Addiction Medicine

Specimen Summary

- urine is the testing specimen of choice
- alternative specimens play a role
- understand advantages & disadvantages
- understand detection windows of each
- use results therapeutically
- seek advice & guidance from your testing facility

Characteristics of a Good Drug Test:

- scientifically valid
 - employs proven methods & techniques
 - accepted by the scientific community
- legally defensible
 - able to withstand challenge
 - established court track record
 - scrutinized by legal/judicial review
- therapeutically beneficial
 - provides accurate profile of client's drug use
 - provides rapid results for appropriate response

Best Practices

Frequent Testing

How Often to Drug Test?

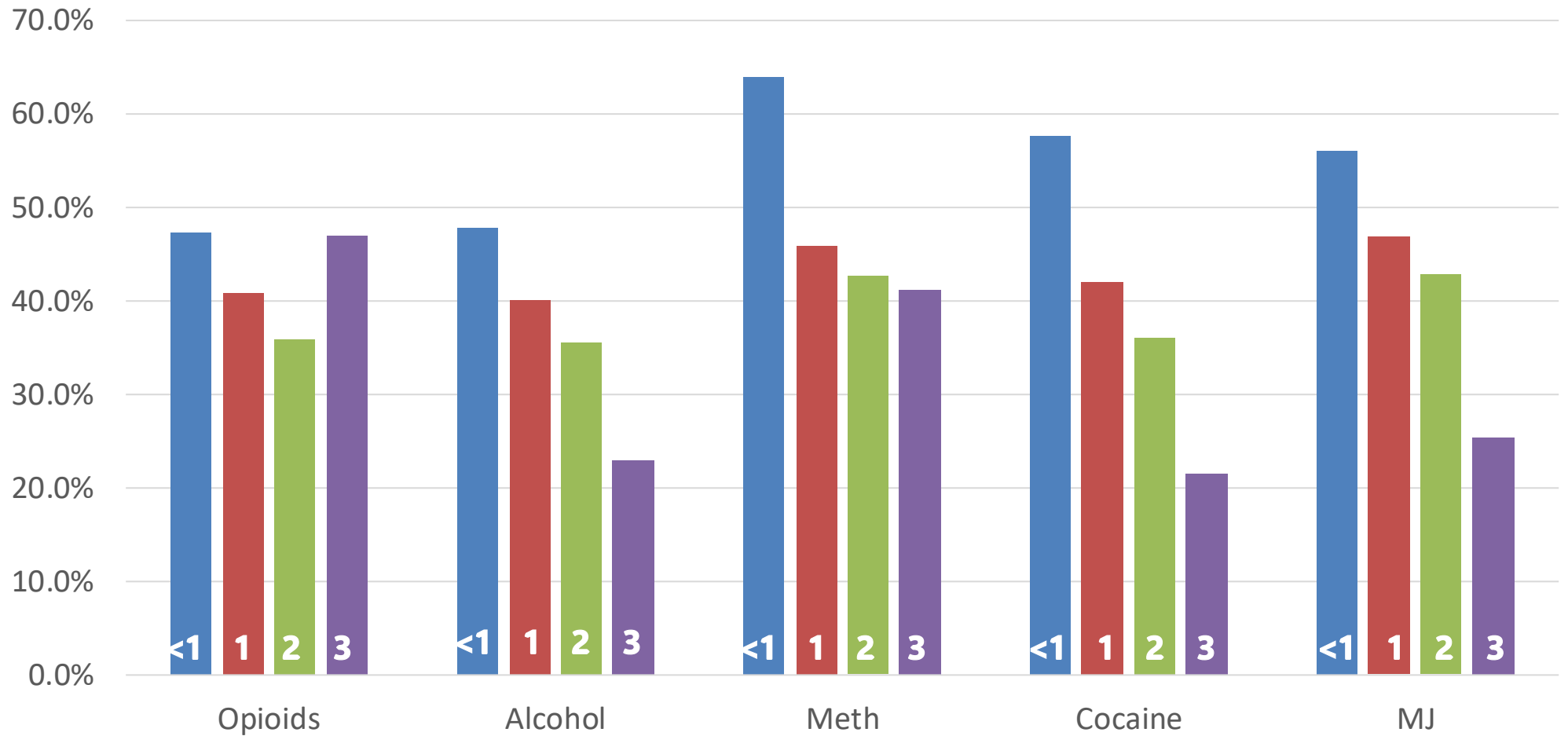
- n Drug and alcohol testing is performed frequently enough to ensure substance use is detected quickly and reliably.
- n for urine - test as often as possible - **at least twice weekly – important point weekly “average”**
- n ankle monitors - 90 days
- n tests that have short detection windows - more frequently
- n **testing frequency remains constant throughout phase progression**

What Does the Research Say?

- More frequent testing is correlated with:
 - higher graduation rates
 - lower illicit substance use
 - lower recidivism
- Participants in treatment-oriented programs perceive drug testing as critical
- One probation study:
 - twice-weekly testing detected about 80% drug use
 - once-weekly testing detected about 35% drug use

Research Findings:

Drug Test Frequency per Week: 3 YR Recidivism



Research Findings:

Twice per week urine drug testing is associated with lower recidivism than testing less often. Submitting 2-3 tests weekly is optimum. Testing more than 3 times per week showed little improvement and may have negative effects

Guidance Implications:

Confirms current best practice FREQUENCY guidance:

“The most effective treatment courts administer urine drug testing an average of at least twice per week until participants have at least achieved early remission of a substance use disorder as defined in Incentives, Sanctions, and Service Adjustments.”

Random Testing

Keep 'Em Guessing

- n The schedule of drug and alcohol testing is random and unpredictable.
- n effective drug testing must be **random**
 - u equal chance of being tested on any given day - INCLUDING weekends and holidays
 - u unexpected, unannounced, unanticipated
 - u limit time between notification & testing
- n urine - no longer than 8 hours following notification
- n four hours for oral fluids

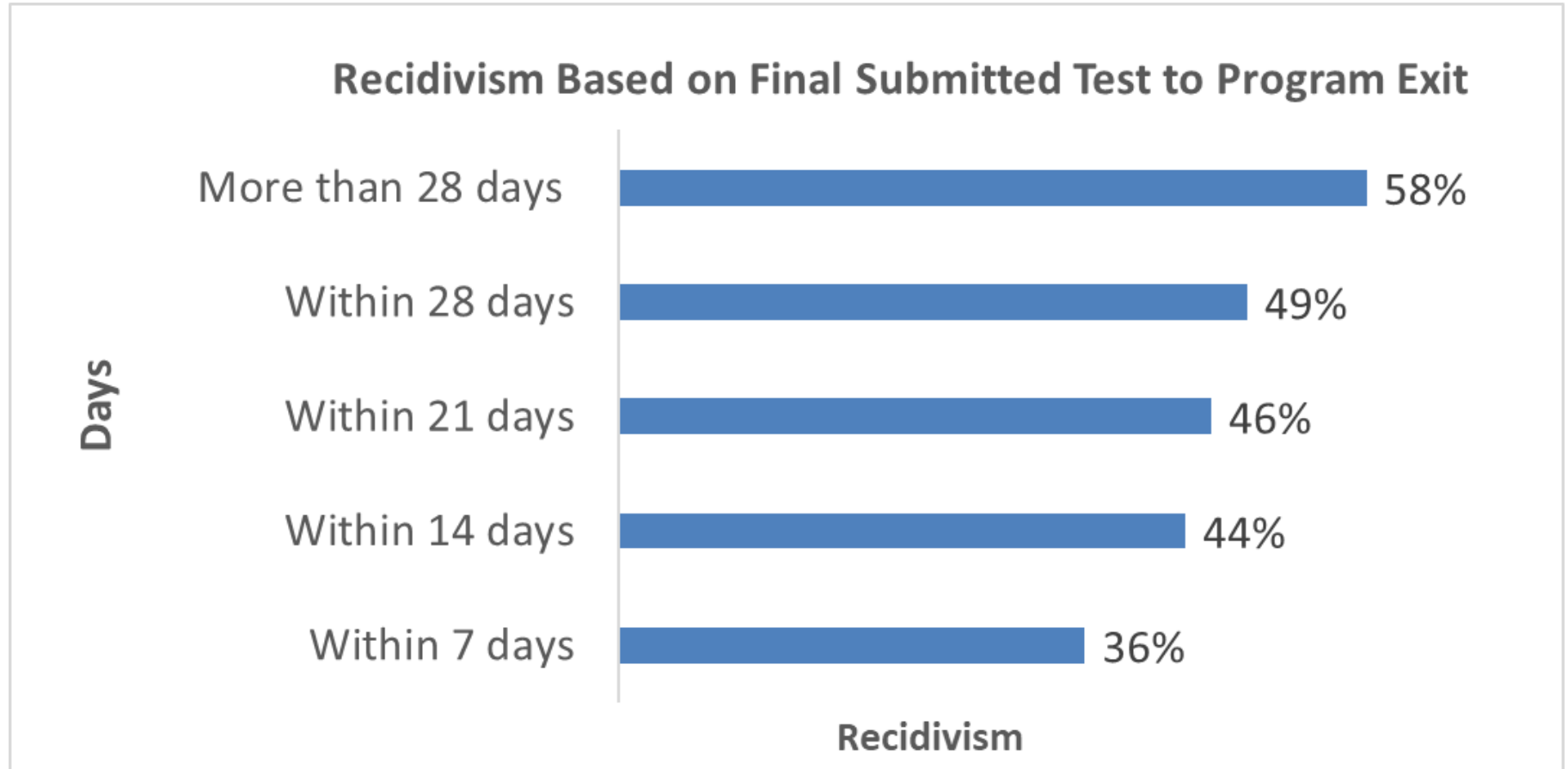
“If clients never know when they are going to be tested, then opportunities for them to use drugs during known testing gaps are reduced. . . . Some testing protocols mistake frequency for thoroughness. Believing that testing three to four times per week (e.g., Monday, Wednesday, Friday) is equally sufficient and effective coverage may be erroneous because it is on a predictable schedule. Courts that relinquish the element of surprise do so at their own risk and may fall victim to creative clients who may find opportunities to subvert the program’s objectives.”

Duration of Testing

Duration of Testing

- ❑ basic tenet of behavior modification provides that the effects of interventions should be assessed continually
- ❑ relapse is difficult to predict
- ❑ reduction of services comes the ever-present risk of relapse or other behavioral setback
- ❑ duration of drug and alcohol testing continues until participants are engaged in continuing-care or aftercare plan.

Research Findings:



Research Findings:

More frequent drug testing in last three months of the treatment court program is related to lower recidivism.

Guidance Implications:

Confirms current best practice FREQUENCY/DURATION guidance: “Forensic drug and alcohol testing is conducted throughout the participant’s enrollment in the treatment court program to detect substance use. The frequency of testing may be decreased after a participant has achieved early remission of their substance use disorder and is reliably engaged in recovery management activities and preparing for graduation. “

Observed Collections

“Observed” collection (for urine)

- single most important aspect of effective drug testing program
- urine collections not witnessed are of little or no assessment value
- denial component of substance abuse requires “direct observation” collections of participants
- when appropriate used trauma-informed collection practices

Challenging Urine Collection Strategies

Sample Collection Procedures:

- ❑ pre-collection preparation
 - ❑ minimize access to water sources
 - ❑ find privacy & security
- ❑ removal of problematic clothing items
- ❑ wash hands prior to donation
- ❑ label sample correctly
- ❑ check temperature (90-100° F)
- ❑ forensic sample - custody & control

Developing control strategies to prevent sample tampering is critical.

Once clients understand that they cannot beat the system, they are much more likely to engage in the therapeutic process toward recovery.

Valid Specimens - The Effective Use of Urine Creatinine Measurements in Abstinence Monitoring

The Use of Urine Creatinine Concentrations for Abstinence Monitoring in Treatment Courts



By Paul L. Cary, M.S.
Forensic Toxicologist

Paul L. Cary, M.S., retired as director of the Toxicology and Drug Monitoring Laboratory at University of Missouri in Columbia, Missouri, in 2015. For forty years, Mr. Cary was actively involved in the management of a nationally recognized toxicology laboratory. He has authored numerous scientific publications, has served on a variety of clinical and technical advisory committees, has taught at the university, is involved in drug testing research, and serves as a consultant in toxicology-related matters. He has been certified as an expert and provided expert testimony in court (local, state, and federal) and in labor arbitration and is a member of the Society of Forensic Toxicology. Mr. Cary has been a resource to treatment court teams throughout the nation and overseas for the past two decades.

Introduction

The fundamental goal of abstinence monitoring in a treatment court environment is to enable the court to evaluate a participant's compliance with program requirements—in other words, the participant's abstinence from prohibited substances. If the court is unable to reliably monitor abstinence, the ability to use rewards/incentives and sanctions as treatment intervention strategies is all but lost. If the court is unable to identify participant relapse or prohibited substance use, it is powerless to intervene therapeutically to change undesired behavior.

When urine is being used as the drug testing specimen, the monitoring of creatinine in each sample obtained is critical in establishing specimen validity. For example, if a urine specimen is determined to be dilute, the drug test may not be able to detect the presence of prohibited substances in the sample, because the concentrations of the drugs have been diluted until they are below the cutoff point of the assay. In this circumstance, test results would produce a false negative finding: prohibited substances were present, participant drug use occurred, but the testing was unable to detect the violation because the sample was more like water than urine. A dilute urine sample, regardless of whether it is intentional or not, prevents the court from evaluating a participant's abstinence.

Unlike testing for drugs, in which the analysis produces either a negative or positive result, the interpretation of urine creatinine concentrations is not always straightforward. Consequently, the therapeutic response to a urine sample that falls outside the acceptable creatinine criteria is often more complicated. This fact sheet addresses many of the issues associated with testing for urine creatinine concentrations in a treatment court context and provides guidance as to appropriate court responses to urine samples that fall outside the acceptable criteria.

The logo for AT Rise, with "AT" in a stylized font and "Rise" in a sans-serif font.

[About](#) [Resources](#) [Training](#) [Advocacy](#) [News](#)

[ALL RISE](#) [PUBLICATIONS](#) [FAQ: DRUG TESTING](#)

FAQ: Drug Testing

The following questions and answers on drug testing were adapted from multiple Ask the Expert sessions facilitated by the Treatment Court Institute.

[DILUTED TESTS](#)

[TESTING FREQUENCY](#)

[CREATININE](#)

[CREATININE LEVELS](#)

[ELEVATED GLUCOSE LEVELS](#)

[CREATININE AND ABSTINENCE MONITORING](#)

[SPECIFIC GRAVITY DRUG TEST](#)

Creatinine testing is a specimen validity issue!

The most common form of specimen tampering is sample dilution.

EVERY urine sample collected for
drug detection should be tested for
creatinine!

You can't intervene to change
behavior if you don't know a client
has relapsed!

Creatinine Production

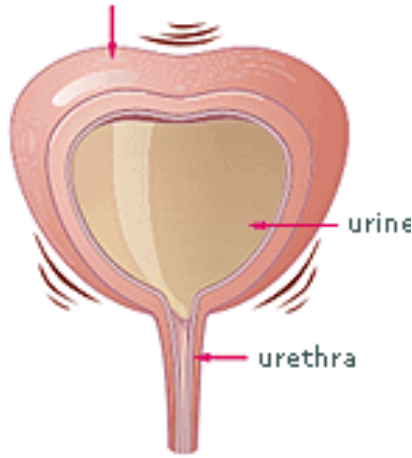
- muscles require energy to contract
- creatine phosphate provides that energy source
- muscle metabolism produces creatinine
- creatinine is a waste substance, eliminated by the kidneys via urine –
 - determine the “strength” or concentration of a urine sample
 - ensure the sample being tested *IS* urine

Pre-Collection Dilution

- high-volume ingestion of fluids (water loading, flushing, hydrating, etc.)
- may be in conjunction with products designed to “enhance” drug elimination or removal of drugs (Gold Seal, Clean ‘n Clear, Test-Free, Naturally Klean, etc.)
- no evidence these products have any additional effect on drug elimination

Water contains no drugs!

- easiest, cheapest, simplest
- urines with a creatinines of less than 20 mg/ dL are considered “dilute” and rarely reflect an accurate picture of recent drug use
- dilute samples are more like water than like urine
- all drug court/criminal justice samples should be screened for creatinine



DILUTION GOAL

Participant has a bladder full of urine with a drug concentration of greater than the cutoff level of the test – thus testing will produce a positive result.



Urine in the bladder is diluted by the consumption of large amounts of non-drug containing fluid; which results in a drug concentration that is less than the cutoff level of the test – thus producing a negative result.

< 20 mg/dL

- In cases of dilute samples, with urine creatinine concentrations that are less than 20 mg/dL, corresponding negative drug testing results should never be interpreted as indicating no drug use or participant abstinence.
- Because the urine sample has yielded a dilute finding, any drugs that were present may have been concealed by the pre-collection hydration which will have reduced the concentration of the drugs to below the cutoff threshold of the test.
- false-negative result

Episodic

- “a series of loosely connected events; occurring once in a while”
- explanations for dilute urine samples
 - disease-related diagnosis (long term)
 - medical condition/illness (short term)
 - concurrent medications (ex., diuretics)
- effect of these factors on urine creatinine

Episodic

- IF, an individual is able to produce a "normal" urine creatinine sample on some/most days
- BUT, produces exceedingly low creatinine level samples (< 20 mg/dL) on other occasions
- THEN, this suggests that the dilute samples are not associated with disease/medical situation or medication

Participants are going to
deny “dilutes” with the
same intensity as they
deny “positives”

Creatinine Sanctions

- verbal warning
- community service
- write paper on how the kidney works
- keep a fluid intake log
- increased surveillance & supervision
- increased therapeutic response
- loss of valued privileges
- limited incarceration

SUMMARY

- n TEST FOR CREATININE!
- n incorporate creatinine guidance in your SOPs and client contract
- n institute a dilute sample prohibition
- n understand low urine creatinine levels are NOT normal
- n dilute samples are nearly always an attempt by the donor to avoid drug use detection
- n progressive sanctioning for repeat dilute tests

Accurate and Reliable Testing Procedures

Two-Step Testing Approach

- screening test – designed to separate negative samples from samples that are “presumptively” positive
- confirmation test – follow-up procedure designed to validate positive test results
 - distinctly different analytical technique
 - more specific and more sensitive

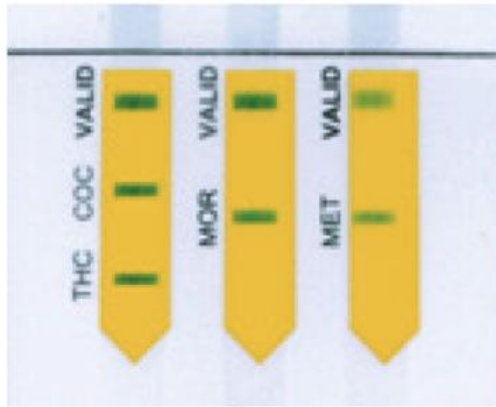
Step One – Screening

- often based on immunoassay technology
- more drug – more binding - more “color” produced – more instrument detector response
- numerous commercial manufacturers
- designed for high throughput instrumentation or on-site devices

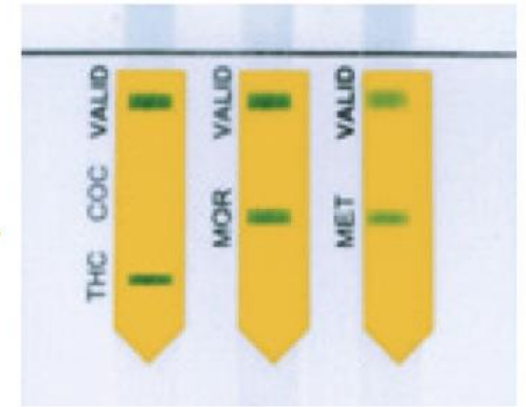
On-site DOA screening

- often based on immunoassay technology
- concept of color “switch”
- “dynamic” versus “static” calibration
- hand-held cassettes or test-cup devices
- one test at a time - no batching
- available in DOA panels or single drugs
- numerous commercial manufacturers
 - differential sensitivity & selectivity

On-site Drug Detection:



◀ Read the results. Any band, even if faint, partial, or broken, indicates a negative result. The absence of color is a presumptive positive result. ▶



Follow package insert guidance exactly!

On-site Drug Detection:



Read results at five (5) minutes.
Results stable up to sixty (60) minutes.



Intensity of band is NOT quantitative!

Step Two - Confirmation

- gas chromatography-mass spectrometry (GC/MS) or LC/MS
 - drug molecules separated by physical characteristics
 - identified based on chemical “finger-print”
 - considered “gold standard”
- other chromatographic techniques

Why confirm ?

- Is it really necessary to confirm drugs that tested positive by initial screening tests?
- Why can't the court adjudicate cases based on the screening test results?
- FALSE POSITIVES

Drug tests & cross reactivity:

- screening tests can and do react to “non-target” compounds
 - amphetamines
 - benzodiazepines
 - opiates
- obtain list of interfering compounds from lab or on-site test vendor
- initial screening (“instant” tests) may only be 60-70% accurate
- **confirm positive results**

The Issue of Urine Drug Concentrations

Drug Tests are Qualitative

- screening/monitoring drug tests are designed to determine the presence or absence of drugs - NOT their concentration
- drug tests are NOT quantitative

Drug concentrations or levels associated with urine testing are, for the most part, USELESS !

- cannabinoids
- opiates
- cocaine metabolite
- amphetamines

~~87~~ ng/mL
negative
negative
negative

Are any of the following questions being asked in your court?

- n How positive is he/she?
- n Are his/her levels increasing or decreasing?
- n Is that a high level?
- n Is he/she almost negative?
- n Is this level from new drug use or continued elimination from prior usage?
- n What is his/her baseline THC level?
- n Does that level indicate relapse?
- n Why is his/her level not going down? (or up?)

THE ISSUE

Urine drug concentrations are of little or no interpretative value. The utilization of urine drug test levels by treatment courts generally produces interpretations that are inappropriate, factually unsupportable and without a scientific foundation. Worst of all for the court system, these urine drug level interpretations have no forensic merit.

DRUG COURT PRACTITIONER FACT SHEET

URINE DRUG CONCENTRATIONS: THE SCIENTIFIC RATIONALE FOR ELIMINATING THE USE OF DRUG TEST LEVELS IN DRUG COURT PROCEEDINGS

By Paul L. Cary, M.S.

PREFACE

As the title implies, the objective of this fact sheet is to provide drug court professionals with a scientifically based justification for discontinuing the interpretation of urine drug levels in an effort to define client drug use behavior. As the premise of this document is not without some controversy, clarification of its intent seems warranted.

This fact sheet is intended for drug court practitioners who are routinely engaged in the interpretation and evaluation of urine drug testing results for the purpose of participant case adjudication, particularly client sanctioning. Given that most drug courts do not have routine access to biomedical or pharmacological expertise, this fact sheet recommends that the use of urine drug concentrations be eliminated from the court's decision-making process in order to protect client rights and ensure that evidentiary standards are maintained.

It is not the intention of this document to prohibit the interpretation of laboratory data by qualified scientists. Nor is it the objective of this fact sheet to assert that urine drug levels have no interpretative value. However, drug court practitioners are cautioned that the interpretation of urine drug levels is highly complex and even under the best of circumstances provides only limited information regarding a participant's drug use patterns. Further, such interpretations can be a matter of disagreement even between experts with the requisite knowledge and training to render such opinions.

It is for these stated reasons that the NDCI strongly encourages drug court programs to utilize the information contained herein to evaluate their drug testing result interpretation practices. This organization recognizes that the use of urine drug levels to assess client behavior may be widespread and longstanding. However, because courts rarely have the necessary toxicology expertise, the routine use of urine drug levels by court personnel in formulating drug court decisions is a practice that in most cases would not withstand scientific or judicial scrutiny. It is hoped that this fact sheet will serve as the foundation for those drug court programs routinely interpreting urine drug levels to transition to a strictly qualitative (positive or negative only) result format. Drug courts are also encouraged to seek expert toxicology advice when necessary and appropriate to assist in the interpretation of testing data associated with challenging cases.

THIS ?

432 indicates he going up, right?

is 22 above the cutoff?

does 219 mean new use?

307 – well she's almost negative, correct?

639 is really high for THC, isn't it?

115 is down from yesterday,
probably continued elimination?

I think 1200 is a new record, isn't it?

515 is much higher than last week, right?

don't we need to consider relapse at 57?

OR THIS ?

Negative or Positive

Attempting to Interpret Urine Drug Concentrations is:

- ❑ inconsistent with fundamental science-based principles
- ❑ does not meet recognized evidentiary standards
- ❑ violates participant's due process rights
- ❑ unethical

Interpretation of Drug Test Results

Negative Drug Test Results:

- indicates that no drugs or breakdown products (metabolites), tested for, were detected in the sample tested
- no such thing as “zero” tolerance or “drug free”
- negative does not mean NO drugs present

Negative Result Interpretation:

- client is remaining abstinent from prohibited substances and is compliant

Other possible explanations

- client not using enough drug
- client's drug use is too infrequent
- collection too long after drug use
- sample has been tampered
- test being used not sensitive enough
- client using drug not on testing list

Negative/None Detected Interpretation

- no need to second-guess every “negative” result
- not suggesting withholding positive reinforcement & rewards for positive behaviors
- drug testing is a monitoring tool
- assess none detected drug testing results in the context of your client’s overall program compliance (or non-compliance) and their life’s skills success (or lack thereof)

Positive Test Result Interpretation

- indicates that drug(s) or breakdown products (metabolites), tested for, were detected in the sample tested
- drug presence is above the “cutoff” level
- greatest confidence achieved with confirmation
- ALWAYS confirm positive results in original sample

The Drug Detection Window

Cannabinoid Detection in Urine

- n Conventional wisdom has led to the common assumption that cannabinoids will remain detectable in urine for 30 days or longer following the use of marijuana.
- n RESULT:
 - u delay of therapeutic intervention
 - u hindered timely use of judicial sanctioning
 - u fostered denial of marijuana usage by clients

DRUG COURT PRACTITIONER

FACT SHEET

THE MARIJUANA DETECTION WINDOW: DETERMINING THE LENGTH OF TIME CANNABINOIDS WILL REMAIN DETECTABLE IN URINE FOLLOWING SMOKING

A CRITICAL REVIEW OF RELEVANT RESEARCH AND CANNABINOID
DETECTION GUIDANCE FOR DRUG COURTS

By Paul L. Cary, M.S.

PREFACE

The duration of the urinary cannabinoid detection window is not settled science. The number of days, following the cessation of marijuana smoking, necessary for cannabinoids to become non-detectable using traditional drug testing methods is the subject of debate among forensic toxicologists and a matter of on-going scientific research. This article makes no pretense to limit this important discussion, but rather, seeks to enhance it. It is hoped that drug court practitioners will find that this information clarifies some of the complex issues associated with the elimination of marijuana from the human body.

Conventional wisdom has led to the common assumption that cannabinoids will remain detectable in urine for 30 days or longer following the use of marijuana. These prolonged cannabinoid elimination projections have likely resulted in the delay of therapeutic intervention, thwarted the timely use of judicial sanctioning, and fostered the denial of marijuana usage by drug court participants.

This review challenges some of the research upon which the 30-plus day elimination assumption is based. Careful scrutiny of these studies should not be interpreted as an effort to discredit the findings or the authors of this research. However, as our knowledge evolves, the relevancy of previously published scientific data should be evaluated anew. One fact is clear—more research is needed in the area cannabinoid elimination.

Cannabinoids - Recent/ Relevant Research

- n 30+ day detection window often exaggerates duration of detection window
- n reasonable & pragmatic court guidance
- n detection time: at 50 ng/mL cutoff
 - u up to 3 days for single event/ occasional use
 - u up to 10 days for heavy chronic use
- n detection time: at 20 ng/mL cutoff
 - u up to 7 days for single event/ occasional use
 - u up to 21 days for heavy chronic use

Recent Cannabinoid Use versus Non-recent use (double jeopardy):

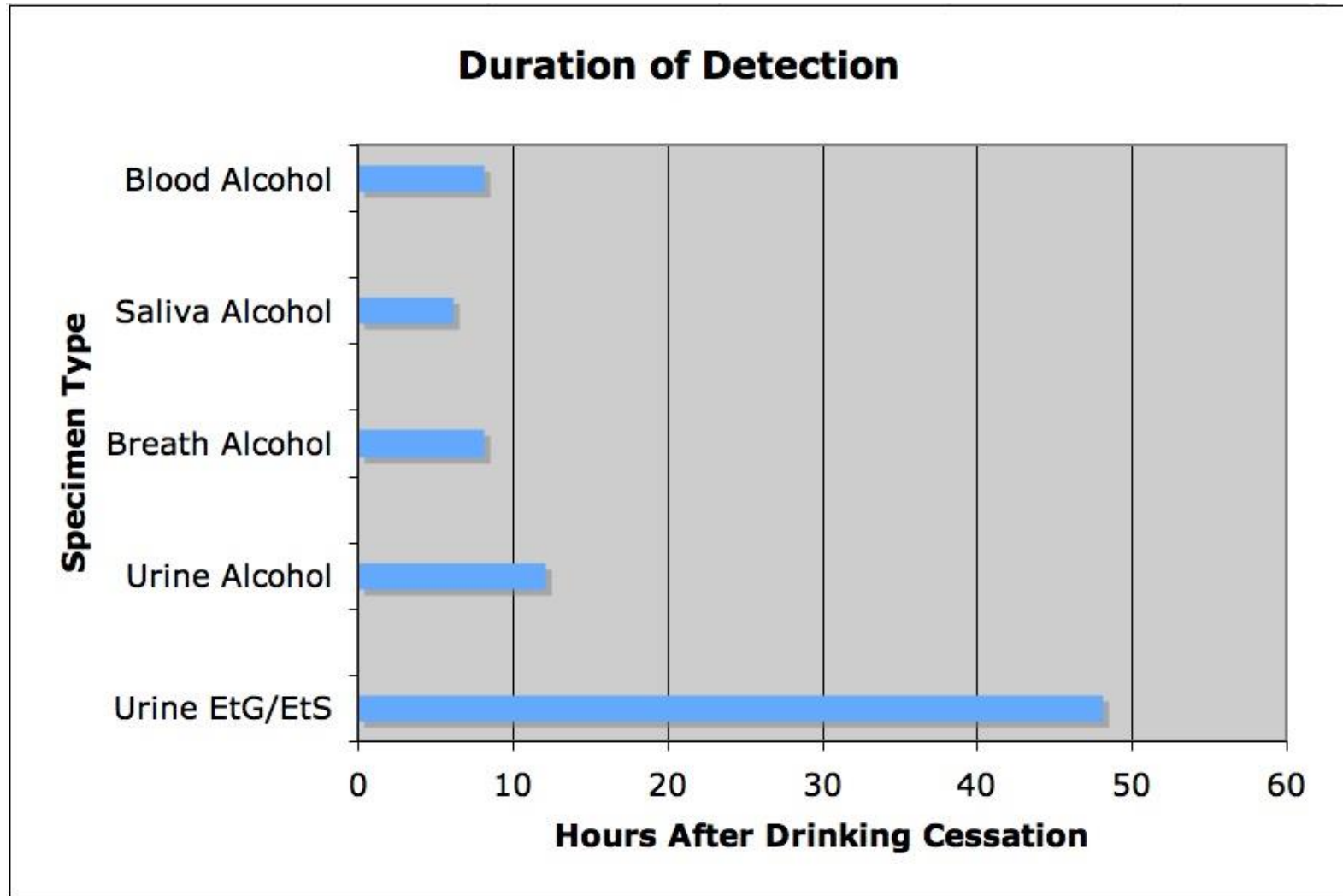
- How do drug courts discriminate between new drug exposure and continued elimination from previous (chronic) use ?
 - an issue only in first phase of program
 - only drug that poses concern is cannabinoids
 - a **positive** cannabinoid drug test that has been preceded by a **negative** cannabinoid drug test nearly always indicated **new use**

Fentanyl is lipid-soluble!

Alcohol – Abstinence Monitoring

- often one of the most problematic substances
- alcohol is rapidly cleared from the body = hours
- negative results don't necessarily document abstinence
- EtG/EtS expands detection window
- use of CAM (continuous alcohol monitoring)
- ignition interlock devices
- unannounced breath testing

Extending the detection window



Rapid Results

Timing is Everything

- n timing is one of the most influential factors for success in a behavior modification program
- n the sooner sanctions are delivered after an infraction and incentives delivered after an achievement, the better the results
- n Test results, including the results of confirmation testing, are available to the Drug Court within forty-eight hours of sample collection

Timing is Everything

- n study of 70 drug courts show:
- n significantly greater reductions in criminal recidivism and significantly greater cost benefits when the teams received drug and alcohol test results within forty-eight hours of sample collection
- n 73% more effective at reducing crime and 68% more cost-effective

Specimen Tampering

Basics of Specimen Tampering - The Three Approaches

- dilution
- adulteration
- substitution

Urine Specimen Adulteration

- addition of foreign substances designed to “mask” drug presence
- post-collection tampering
- low-tech adulterants that cause “pH shift” (lime, vinegar, bleach, ammonia, lemon, drano)
- low-tech adulterants that disrupt testing chemistry (salt, methanol, detergent)
- “high-tech” adulterants

Urine Specimen Substitution

- replacing donor urine sample with another drug-free specimen
- biological substitution - someone else's "clean" urine
- non-biological substitution - replacing urine with urine "look-a-like" sample (diet Mountain Dew, water with food coloring)
- non-biologicals can be detected with creatinine testing

Controlling Specimen Tampering

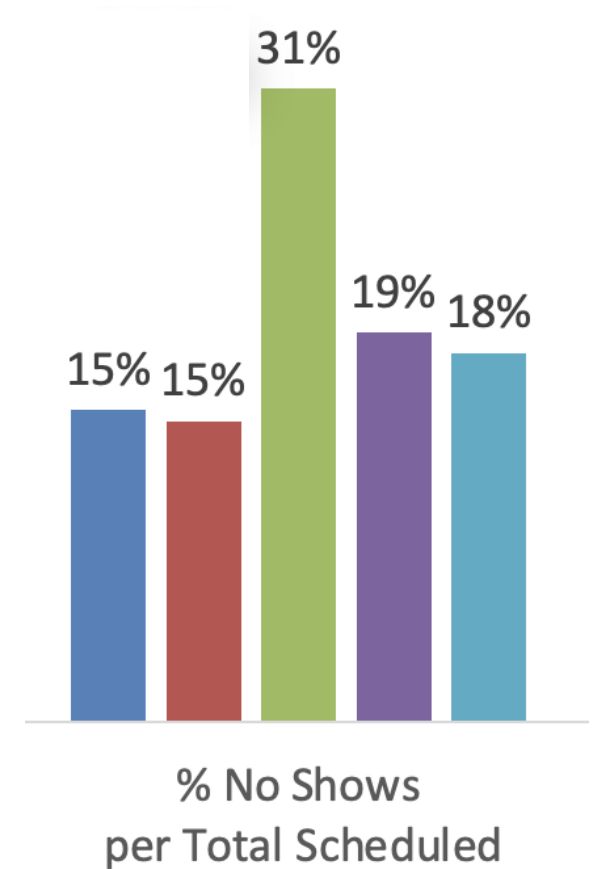
- develop challenging collection strategy - ie. make the testing unannounced and RANDOM!
- directly observed collections is the most effective approach to preventing adulteration and substitution
- inspect sample - train collection staff
- keep abreast of tampering techniques
- take temperature measurements (90° - 100° F)
- use laboratory employs specimen validity tests & use with on-site devices

Drug Testing – Prosecutor Specific Issues

- repeated client denials – contested hearing
- chain of custody as evidential admissibility
- don't prosecute on "instant" (POCT) tests
- the "eternal" clean out issues
- it isn't about the number of positive test, but about the when and why

Research Findings:

Participants who use methamphetamine have higher incidence of no-shows than any other drug.



Practice Guidance:

There's no there there. Meth memory – anhedonia. No shows may reflect physical ramifications (brain damage) rather than deliberate behavior. Be patient! Repeat, repeat, repeat! Focus on engagement.

Paul's Pearls



Pearl #1

BE PATIENT!

Pearl #2

- Don't focus on the number of positive drug test results
- Instead – consider the “how” & “why”
- Triggers: trauma, stress, anxiety, relationships, employment, etc.
- Is the participant receiving the right “medicine”?

Pearl #3

It's Not "Gotcha" – It's Help Ya!

Honesty & Engagement
Come with Time & Trust



email address:

n carypl@missouri.edu