


 Council on Licensure,  
Enforcement and Regulation

  
2010 Annual Educational Conference - September 23-25

Use of Substance Abuse Testing in Licensure Actions

Presenters: **Donna R. Smith, PhD**  
**FirstLab, Inc**

*Promoting Regulatory Excellence*

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Monitoring Programs for Professionals with Substance Use Disorders (SUD)

- Monitoring programs often include comprehensive random testing programs designed to:
  - deter and detect relapse
  - enforce program contracts
  - monitor abstinence

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Monitoring Programs for Professionals with Substance Use Disorders (SUD)

- “Typical” program requires at least 15 tests per year
  - Participants must call or log in daily and are notified if today is a test day
  - Must report for testing within specified time of notification
  - Some programs supplement call/log-in testing with tests conducted by field case managers/agents

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<p data-bbox="289 344 716 369">Monitoring Programs for Professionals with SUD</p> <ul data-bbox="245 380 732 653" style="list-style-type: none"><li>• Programs use urine, hair, breath &amp; oral fluid specimens for drug and/or alcohol testing</li><li>• Urine testing provides the widest range of drugs/substances that can be monitored/targeted</li><li>• Urine drug testing panels range from 9-10 drug classes to over 30 drugs/drug classes</li><li>• Most programs include "flex or option" testing<ul data-bbox="277 516 732 558" style="list-style-type: none"><li>- Several available panels; a panel assigned "randomly or periodically" to a specific test date</li></ul></li><li>• Most urine drug testing includes measures to detect specimen dilution, adulteration or manipulation</li><li>• Newer technology to detect alcohol biomarkers (ETG, ETS) in urine specimen has dramatically increased sensitivity and detection time for alcohol consumption</li></ul>		

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<p data-bbox="396 898 578 924">Testing Frequency</p> <ul data-bbox="245 940 732 1241" style="list-style-type: none"><li>- Set standard for all participants in program</li><li>- Frequency based on time in program</li><li>- Frequency based on differential diagnosis</li><li>- Avoiding a predictable pattern of tests</li><li>- Weekend, holiday, vacation coverage</li><li>- Planned "back-to-back" dates for testing</li><li>• "Magic" number for most effective deterrence/detection<ul data-bbox="277 1192 732 1241" style="list-style-type: none"><li>- There isn't one; however, minimum of 15 per year is an accepted standard</li></ul></li></ul>		

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<p data-bbox="354 1451 626 1476">Flex or Option Panels</p> <ul data-bbox="245 1493 732 1801" style="list-style-type: none"><li>• Use of flex testing or option panels is an effective way to increase deterrence and control costs</li><li>• Goal is to prevent or deter "drug migration"</li><li>• Choice of option panels should be based on common patterns of drug choice and/or accessibility to drugs</li><li>• Use of flex testing for alcohol use deterrence/detection</li></ul>		

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<h3>Timing Issues</h3>		
<ul style="list-style-type: none"> <li>• Program sets criteria for call-in requirements and reporting for testing</li> <li>• The longer the time between call-in (notification) and reporting for the test, the greater the opportunity for manipulation of the test outcome</li> <li>• Workplace random testing regulations usually require the employee to report for a random test within 2 hours of being notified of selection</li> <li>• Tracking call-in time vs. collection time; looking for a pattern</li> </ul>		

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<h3>Medical Review Officer</h3>		
<ul style="list-style-type: none"> <li>• Review and interpretation of non-negative results</li> <li>• Primary function is to determine if there is a medical explanation for the urine test result</li> <li>• Interpretation of urine test results does not include determining dose/urine level relationships</li> <li>• Cannot always determine causes of invalid specimens or source of interference</li> <li>• Cannot determine causes of dilute specimens or low creatinines</li> <li>• MRO interviews with participants are telephonic</li> <li>• MRO administrative reviews of authorized medications</li> </ul>		

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<h3>Urine Testing</h3>		
<ul style="list-style-type: none"> <li>• Urine specimen obtained from participant             <ul style="list-style-type: none"> <li>- Forensic protocol: chain of custody; integrity checks</li> </ul> </li> <li>• Sent to laboratory for analysis: screening test by immunoassay and confirmation test by LC/MS/MS or GC/MS technology</li> <li>• Detection time for drugs is variable</li> <li>• Urine drug levels—amount of drug or drug metabolite detected—are not dose related and cannot establish impairment</li> <li>• Major problem with urine drug testing: vulnerability to manipulation             <ul style="list-style-type: none"> <li>- Specimen adulteration, dilution, substitution</li> <li>- Direct observation of specimen collection &amp; specimen validity testing</li> </ul> </li> <li>• Major advantages to urine drug testing: scope of drugs that can be detected and its cost</li> </ul>		

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<h3>Hair Testing</h3> <ul style="list-style-type: none"><li>• An effective adjunct to urine testing because of the increased window of detection. Drug or drug metabolites are deposited in the hair approximately 5-7 days after use</li><li>• A hair sample of approximately 1-1½ inches length cut close to the scalp at the crown of the head will generally detect drug usage over the prior 90 day period</li><li>• Hair testing is best suited for identifying repeated usage of drugs as opposed to single use incidents</li><li>• Improved hair testing preparation methods effectively eliminate the possibility of external or environmental contamination causing a positive test.</li></ul>		

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<h3>Hair Testing</h3> <ul style="list-style-type: none"><li>• The most effective use of hair testing is in conjunction with a urine testing program<ul style="list-style-type: none"><li>- conduct a hair test as a baseline at the beginning of the program (approximately 2-3 months after cessation of drug use) and then conduct hair tests every 1-3 months with supplemental urine tests at more frequent intervals</li></ul></li><li>• Cost of hair testing is generally 3 times the cost of urine drug testing<ul style="list-style-type: none"><li>- Cost of a hair specimen collection is also additional</li></ul></li></ul>		

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<h3>Oral Fluid (Saliva) Testing</h3> <ul style="list-style-type: none"><li>• Saliva testing for drugs is available as either an immediate or rapid screening result or as a laboratory based analysis using the same methods applied for urine drug testing<ul style="list-style-type: none"><li>- Immediate screening result tests must be followed with a urine specimen or additional saliva specimen that is sent to a laboratory for confirmation analysis</li></ul></li><li>• Incorporation of drugs into oral fluid:<ul style="list-style-type: none"><li>- Marijuana detection is limited</li><li>- Drug concentrations are very small</li></ul></li><li>• Detection window for most drugs is similar to urine testing</li><li>• Alcohol concentrations in saliva are essentially equivalent to blood and breath</li></ul>		

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<h3>Alcohol Testing</h3>		
<ul style="list-style-type: none"> <li>• Breath/blood testing gives accurate assessment of impairment</li> <li>• Urine alcohol testing does not correlate well to impairment, but is effective for monitoring alcohol abstinence             <ul style="list-style-type: none"> <li>- Alcohol in urine may be present due to glucose, fermentation, conversion, bacterial actions, etc.                 <ul style="list-style-type: none"> <li>• occurs both pre and post-collection of urine specimen</li> </ul> </li> </ul> </li> <li>• EtG/EtS testing very sensitive and specific             <ul style="list-style-type: none"> <li>- Unknowing non-beverage ingestion, environmental exposure, "innocent consumption" can cause positive EtG/EtS results</li> <li>- No known <i>in vitro</i> production of EtG</li> </ul> </li> </ul>		

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<h3>EtG/EtS Testing and Licensure Actions</h3>		
<ul style="list-style-type: none"> <li>• SAMHSA Advisory Sep 2006             <ul style="list-style-type: none"> <li>- <i>Currently, the use of an EtG test in determining abstinence lacks sufficient proven specificity for use as primary or sole evidence that an individual prohibited from drinking, in a criminal justice or a regulatory compliance context, has truly been drinking. Legal or disciplinary action based solely on a positive EtG, or other test discussed in this Advisory, is inappropriate and scientifically unsupported at this time. These tests should currently be considered as potential valuable clinical tools, but their use in forensic settings is premature.</i></li> </ul> </li> <li>• Identification of cut-off value and physician (MRO) interpretation of test results             <ul style="list-style-type: none"> <li>- Cut-off values of 100, 250 &amp; 500 ng/mL are used</li> <li>- EtG levels of 1000 ng/mL or greater are NOT consistent with unknowing/incidental ingestion of alcohol</li> </ul> </li> <li>• Program requirements and contract conditions concerning avoidance of all alcohol must be well articulated to licensees</li> <li>• EtS testing is recommended in all cases where EtG is detected</li> </ul>		

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<h3>Testing Program Data</h3>		
<ul style="list-style-type: none"> <li>• A failed or positive drug/alcohol test is not the only data derived from a testing program</li> <li>• Call-in/log-in data—missed calls, missed tests, testing times, etc.</li> <li>• Financial and personal responsibility for meeting testing program requirements</li> <li>• Useful indicators concerning reporting of prescription medication use</li> <li>• Adjunctive clinical tool for relapse assessment</li> <li>• Testing program data is largely objective, not subjective in nature</li> </ul>		

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