

The 12-Panel Drug Test

12-Panel drug testing can have useful applications, as it provides an additional screening for safety risks associated with medical (prescription) drugs. Companies evaluating the 12-Panel testing for their program should be aware of the safety implications, operational impact and risks associated with the practice.

The 12-Panel Drug Test: Implication and Applicability Within Your Program

Recently, there has been increased general awareness about the abuse of Oxycodone and other prescription medications. National media stories have drawn attention and raised the profile of the abuse of these medications. Consequently, a number of worksites have, or are considering, expanding their testing standards from the standard 5-Panel drug test including Heroin and MDMA to larger test panels that screen for additional drugs.

There can be very compelling reasons to use an expanded panel test, but it is important to understand the true effects on your testing program. CannAmm's goal is to provide clients with the information and the criteria to make an informed determination. Recently, some worksite testing standards have changed to move from the standard 5-Panel to a 12-Panel drug test that includes: Oxycodone, Methadone, Barbiturates, Benzodiazepines, and Propoxyphene (see Appendix 1 for information on these drugs).

In response, some organizations are considering the move to a 12-Panel test across their entire testing program. Before changing your standards, we recommend considering the following to ensure you are fully informed:

- Does my current supplier provide testing at the screening and confirmation levels the worksite has mandated?
- Is there an immediate risk to worker safety that needs to be addressed?
- Is there sufficient evidence that this substance is being abused in our workplace or the workforce population?
- Are there established guidelines on testing and confirmation that can provide the same legal defensibility as your current panel?
- What impact will this have on your turnaround times in crunch situations (Post Accident/Incident, Reasonable Cause/Suspicion, urgent Pre-Access)?
- Are there any limitations on the type of methods available for this drug, for example point of collection testing/ laboratory oral fluid testing?

So long as you have a good understanding of the answers to the above questions, you have the information to make an informed decision.

Evaluating Changes to Your Drug Testing Program

There are three key principles that drug and alcohol testing administrators should consider when making a decision on any testing practice within their program:

1. **Safety:** The goal of the change is to produce improved workplace safety.
2. **Operational Impact:** The costs, both direct and indirect, are known and applying the change is both feasible and practical.
3. **Risk:** The integrity, legal defensibility and compliance of the testing program are not at risk because the change conforms with a clearly established standard and/or contractual obligation.

Applying the Three Principles to the 12-Panel

Safety:

The rationale for adding additional drugs to the standard 5-Panel is the goal of identifying safety risks that are currently unaddressed. The additional drugs that a common 12-Panel tests for are all prescription medications. The standard 5-Panel tests primarily for prohibited/illegal drugs. It is important to be aware that the safety risks of prohibited drugs are

well supported, but responsibly taken prescription medications are more challenging to link to an actionable safety risk.

Your program will change, from primarily focusing on identifying illegal drugs of abuse that negatively impact safety on the worksite, to now also including non-prohibited prescribed medications that are used in medical treatments. The risks certain medications pose in a safety sensitive environment will ultimately depend on the clinical opinion of the reviewing physician. Safety advisories are typically issued when the reviewing physician determines that there is a potential risk; however, there is also a legitimate prescription to justify the presence of the drug.

Operational Impact:

Direct Costs: Cost differences between a 12-Panel test versus a 5-Panel test will vary from provider to provider; typically the difference is relatively small. The direct cost impact becomes notable only when the provider charges a fee for samples that undergo a secondary round of testing at the laboratory using different methods known as confirmation testing in an accredited laboratory. 12-Panel tests undergo 30% more confirmation tests than the 5-Panel test.

Indirect Costs: More importantly for program administrators to consider, when evaluating a 12-Panel test, are the indirect costs. The general consequence of adding drugs to any panel is negatively affecting the average turnaround time to obtain a final result. The performance difference translates into more operational downtime and increased staffing expenses. The operational impact must be weighed to determine whether or not this is acceptable. In CannAmm's experience, which is consistent with that of many large US Third Party Administrators (TPAs), the Medical Review Officer (MRO)-Verified positive test rate for these additional drugs is very low, often less than 1% (see Appendix 2).

Risk:

One of the key attributes of the standard 5-Panel drug test is its defensibility. A trustworthy test application produces fair and reliable results which can be trusted to best identify a risk and defensible enough to act upon with confidence. This is only achieved by testing to a defensible standard; specifically those outlined by the Department of Health and Human Services (DHHS). This standard has been adopted by the Construction Owners Association of Alberta (COAA) and recognized as the only acceptable standard in regulated North American workplace drug testing programs.

These standards do not cover or comment on additional drug panels. While the the same forensic process is followed, some of the fundamental testing standards, such as the concentration limit that separates a positive laboratory result from a negative laboratory result, are simply not there.

Summary

12-Panel drug testing can have useful applications, as it provides an additional screening for safety risks associated with medical (prescription) drugs that may be used as substances of abuse. Companies evaluating the 12-Panel for their programs should be aware that, historically, this panel and other similar "extra panel" tests have resulted in less than a 1% increase in positive rates, because many of the tests that require confirmation testing and are lab-confirmed positive are eventually overturned by the Medical Review Officer due to the presence of a valid prescription.

Often in cases where laboratory - positive tests are reversed by the MRO, a safety warning may accompany the test result. An additional consideration is that the full cycle to produce MRO reversed verified negative result typically takes several (4-6) days turnaround time. Companies need to be aware of the indirect financial impact of this process on their operations.

In addition, moving from the standard to the 12-Panel testing introduces risk because the additional drugs cutoffs are not set by DHHS - the only recognized authority. Companies can seek to mitigate this risk through the implementation of a prescription reporting policy within their organization.

Any clients interested in discussing such a policy are encouraged to contact CannAmm at 1.800.440.0023 - we are here to advise and assist.

References

1. "Major findings from the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS) 2010." Health Canada. 14 March 2012. N.P. Web. March 28 2012. <<http://www.hc-sc.gc.ca/hc-ps/drugs-drogués/stat/index-eng.php>>
2. Pagel, ML, et al. "Marijuana and human performance: an annotated bibliography (1970-1975)." Percept Mot Skills. 45 (1977):1125-6. Print
3. Sobolevsky, T, et al. "Detection of JWH-018 metabolites in smoking mixture post-administration urine." Forensic Science International 200 (2010): 141-147. Print.

Appendix 1: Overview of the Drugs Added in the Most Common "12-Panel" Tests

Methadone

- A long acting narcotic that can cause impairment, which is used to replace heroin (treatment for heroin / opiate addiction).
- Provided via Methadone clinics, which exist in many communities and are often very busy.
- Typically patients at Methadone clinics have to do clinical testing to prove they are no longer on heroin.
- Only prescribed by a physician specially licensed to prescribe methadone and, in such cases, is generally done as an observed ingestion at the pharmacy.
- Also used for chronic pain.
- Does not produce a big high, but stops withdrawal. Higher doses of methadone can block the euphoric effects of opiates such as heroin and morphine.
- Not a psychoactive. No injection. Long acting. Patients don't have to buy it like heroin, so prescribing methadone is a mechanism to try and reduce criminal activity.
- Testing for Methadone is done to assess a safety concern.
- Is it abused? In some cases. There is a black market. Addicts seek it to deal with withdrawal symptoms which are not dangerous, but can be very painful.
- Most patients with a prescription will get a negative end result with legitimate safety warnings.

Propoxyphene (Darvon)

- An old narcotic, pain killer that was around for a very long time.
- 120k prescriptions in 2003, 28k in 2008... now discontinued in Canada.
- Historically this drug was more common in the USA, but now discontinued there also.
- Now off the market – an oddity that this drug is included in the panel.

Barbiturates

- An older type of sleeping medication.
- Can be very dangerous, as there is a very small therapeutic level before it becomes lethal.
- Doctors don't often prescribe anymore – very rare.
- Very infrequently abused.
- Most patients with a prescription will get a negative end result with legitimate safety warnings.

Benzodiazepines (Clonazepam, Ativan, Diazepam [Valium])

- Valium family that replaced barbiturates.
- Used for anxiety, grief, panic disorders, and sleep.

- Many different prescriptions including Ativan and Clonazepam.
- Removes inhibitions, also causes amnesia effects, affects memory.
- A more common medication, and prescribed frequently.
- USA has banned all narcotics and benzodiazepines for Class A licenses.
- Most patients with a prescription will get a negative end result with legitimate safety warnings.

Oxycodone (contained in Oxycocet and Percocet in Canada, or OxyContin in the US)

- An opiate with similar withdrawal, similar impairments & likelihood of dependency as other opiates; only minor differences.
- Intended to be a long-release medication, but is ground down into powder to increase the intensity of its effects and produce a “high”.
- Neo Oxy is being released soon by the manufacturer to replace this drug. There are two changes in formulation (1) a harder shell, and (2) the contents of the pill will turn to a gel if it gets wet, and then isn’t injectable.
- Because it is being taken off the market, it is being removed from some drug benefit plans. Abusers are trying to get the old variety while it lasts, so there has been a run.
- A lot of this drug is diverted – it has a high frequency of abuse.
- Gets the user very high, and is very habit forming.
- High numbers of youth dependent on it for abuse.
- USA has banned all narcotics and benzodiazepines for Class A licenses.
- Most patients with a prescription will get a negative end result with legitimate safety warnings.

Appendix 2: Statistics on Positive Rates for 12-Panel Drugs

Source: CannAmm National Testing Data

- 5-Panel Test (Amphetamines (MDMA-Ecstasy), Methamphetamines, Marijuana, Cocaine, Opiates, 6 AM (Heroin), Phencyclidine)

Laboratory Confirmed Positive Rate.....6.4%

MRO Verified Positive Rate.....5.5%

Positives Reversed by the MRO.....0.9%

- 12-Panel Test (5-Panel Drugs plus Barbiturates, Benzodiazepines, Methadone, Oxycodone, Propoxyphene)

Laboratory Confirmed Positive Rate.....8.5%

MRO Verified Positive Rate.....5.9%

Positives Reversed by the MRO.....2.6%

The increase in laboratory positives for the 12-Panel is 2.1% (over 30% increase) but a higher percentage of the laboratory positives are reversed by the MRO due to the employee having a verifiable valid prescription for the drug that tested positive. In this example with our preliminary data, 2.6 % of the laboratory positives on the additional 5 drugs are reversed by the MRO thus producing a negative result. Thus the net additional verifiable positive rate is 0.4%.