



# TOXICOLOGY TIMES



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## Comparison of Drug Confirmation Methods (Part 3)

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Clinically, there are a number of important things to consider in regards to confirmation. When you screen a urine using the standard immunological method, you are reliant on what specific tests are included in the screen. Typically, in most non-drug treatment venues, there is a screen only panel consisting of opiates, barbiturates, THC, cocaine, amphetamines and frequently either benzodiazepines or PCP or both. Many drug treatment programs add other drugs to the screen to identify abuse of drugs not seen in this standard screen. They could include oxycodone, methadone, buprenorphine, fentanyl, psychedelics, and some of the phenylethanolamine abused derivatives like ecstasy (MDA/MDMA), and others. Other psychostimulants like Ritalin (methylphenidate) will also not be identified if not specifically tested for. Other drugs frequently abused, but not screened for, include tricyclic antidepressants, dextromethorphan, synthetic cannabinoids, promethazine (phenothiazines), gabapentin, Seroquel among others.

As such, especially in a drug treatment milieu where ensuring sobriety is paramount, it becomes necessary to detect and screen for

as many drugs of abuse that can be done. Since most centers do not do this, a negative screen cannot be relied on to confirm that the individual is not abusing a mind alerting substance. What does one do?

The first consideration is to fashion a screening test with detection of as many of these drugs as is feasible. There may be geographical differences in what is being commonly abused and it makes sense to explore this. However, when a situation arises and there is strong suspicion that an individual being tested is actually using illicit substances but their drug screen is negative, then it becomes logical to consider adding additional testing to attempt to pick up other drugs not routinely screened for.

Another clinical situation that becomes paramount to order confirmatory testing is that in opiates so that levels of what is in the sample can be determined. An example of this is the situation where an individual is abusing heroin and also using codeine in an attempt to mask its use. Codeine is metabolized into norcodeine, codeine-6-glucuronide, and morphine (which is also the major metabolite of heroin). However, when both are being used, the concentration of morphine will be much higher than the concentration of codeine when the person is

also abusing heroin. You would be unable to sort this out without a confirmatory test where levels are given.

Patients will also frequently be on other medications that may cross react and yield a positive class screen and then will need confirmation. This will help evaluate if the positive result was caused by a medication interaction or from use of an illegal substance.

Adulterants may also be added by the patient that are unusual or hard to detect by regular urinalysis or adulterant screening and confirmation testing of the negative urine may be useful.

For many reasons, confirmatory testing is an essential part of treatment for chemical dependency. It is also essential for other general clinical situations such as in the Emergency Room (both Psychiatric and Medical) as well as the general hospitalized or outpatient clinic. At all times one must ask oneself "How can I interpret these test results I am given?", "How reliable are they?" and "Do I need to further investigate?". All too often clinicians blindly rely on screening tests as enough to make clinical decisions that may be faulty if not based on accurate data.

### ??? Did You Know ???

### Question of the Month

SAMHSA established the Recovery Support Strategic Initiative to promote partnering with people in recovery from mental and substance use disorders and their family members to guide the behavioral health system and promote individual, program, and system-level approaches that foster health and resilience (including helping individuals with behavioral health needs be well, manage symptoms, and achieve and maintain abstinence); increase housing to support recovery; reduce barriers to employment, education, and other life goals; and secure necessary social supports in their chosen community. Source: SAMHSA

**Question:** What causes low Mean Platelet Volume (MPV)?

**Answer:** Mean Platelet Volume (MPV) is a calculation and usually indicate some sort of thrombosis or platelet destruction. There can be many things that cause low platelet counts including, but not limited to Leukemia, some types of anemia, viral infections such as hepatitis C or HIV, chemotherapy drugs, heavy alcohol consumption, pregnancy, immune thrombocytopenia, bacteria in the blood, thrombotic thrombocytopenic purpura, hemolytic uremic syndrome, and certain medications including heparin, quinine, sulfa-containing antibiotics, and anticonvulsants.