

DRAFT Position Statement

Confirmation of Presumptively-Positive Drug Screen Results in Transportation, Workplace, and other Safety Cases

The Alcohol, Drugs and Impairment Division of the National Safety Council recommends that all presumptively positive drug screen results in biological specimens (e.g., blood, oral fluid, urine) obtained from people for transportation, workplace, death, and serious injury investigations be confirmed using another aliquot and a further analytical method prior to issuing a report. A drug screen is an initial test procedure that is generally qualitative for a drug or drug class. A drug confirmation is a further test procedure with specificity to identify the drug and can be quantitative. The practice of reporting only tentative presumptively-positive drug screen results in these investigations is premature and forensically unacceptable since false positive results are a known reasonable characteristic of an initial test procedure. Drug testing results in these types of investigations can have serious consequences such as criminal prosecution and loss of employment. It is essential that the risks associated with reporting presumptively positive test results be eliminated by conducting appropriate confirmatory testing.

Comments

Examples of older drug screening tests are colorimetric and immunoassay (IA) for drug classes. More recent examples of drug screening tests are liquid chromatography with time-of-flight (TOF) or other mass spectrometric detection for drugs. Drug confirmation tests generally use gas or liquid chromatography with mass spectrometry (e.g., GC-MS, LC-MS/MS). Recently, the same scientific principle of a highly specific method such as LC-MS/MS may be used for the screening and confirmation tests.

DHHS-SAMHSA requires that laboratories for federal agency workplace drug testing “*use a confirmatory drug test method that specifically identifies and quantifies the drug or drug metabolite*”. [DHHS-SAMHSA, 2017, p.3-10]

The American National Standards Institute (ANSI) / Academy Standards Board (ASB) has a higher requirement for drug identification than the above general analytical principle. ANSI/ASB Standard Number 113 has the general requirement (4.3.1.1) “*To identify an analyte, a minimum of four (4) points shall be achieved by combining no more than three different techniques on a specific matrix.*” [AAFS/ASB, p.4] Examples of identification points for common forensic toxicology laboratory methods are provided in Annex B of that document.

References

Department of Health and Human Services - Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention, Division of Workplace Programs (2020). Medical Review Officer Guidance Manual for Federal Workplace Drug Testing Programs, <https://www.samhsa.gov/sites/default/files/2020-mro-manual.pdf>

American Academy of Forensic Sciences, Academy Standards Board (AAFS/ASB) (2023). Standard for Identification Criteria in Forensic Toxicology, First Edition, *ANSI/ASB Standard 113*, https://www.aafs.org/sites/default/files/media/documents/113_Std_e1_0.pdf