



Alcohol, Drugs and Impairment Division - NATIONAL SAFETY COUNCIL

Position Statement

Consensus-based Laboratory Standards, Accreditation, and Individual Certification

Position

The Alcohol, Drugs and Impairment Division (ADID) of the National Safety Council recommends forensic toxicology service providers adopt consensus-based standards, obtain laboratory accreditation, and support certification of individuals to promote increased consistency, objectivity, quality, and accountability of forensic services. The ADID recommends that forensic toxicology service providers be appropriately resourced to accomplish these objectives. Forensic services support safety and the elimination or reduction of impairment in performance in the workplace, on the roadway, and any other place.

This position statement expands on the National Safety Council's Position/Policy Statement #11 which supports the development, adoption, and use of voluntary consensus standards.

Background

In 2009, the National Academies of Sciences, Engineering & Medicine (NASEM) published "Strengthening Forensic Science in the United States—a Path Forward" outlining recommendations for improving forensic science, including the need for standardization, laboratory accreditation, and the certification of individuals.

Consensus-based standards

The Organization of Scientific Area Committees (OSAC) for Forensic Science was created in 2014 within the National Institute of Standards and Technology (NIST) to support the development and implementation of consensus-based standards in forensic science.

Consensus-based standards are developed by standards developing organizations (SDOs). A consensus-based process ensures that interested and affected parties have an opportunity to participate in the standards development process defined by openness, balance, consensus, and due process. To achieve consensus, all views and objections must be considered, and a demonstrated effort must be made toward resolution. Due process is key to ensure that standards are developed in an environment that is equitable, accessible, and responsive to the requirements of various stakeholders.

The American National Standards Institute (ANSI) initiates standardization coordination work in the United States and advocates U.S. policy and technical positions in international standards organizations (e.g., International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)). Standards that are developed by SDOs following ANSI requirements can be approved as American National Standards.

The publication of forensic discipline-specific consensus-based standards by the American Academy of Forensic Sciences (AAFS) Academy Standards Board (ASB) and American Society for Testing and Materials (ASTM) Committee E30 on Forensic Sciences has rapidly expanded. Published standards related to forensic toxicology can be grouped into the following topics: Terminology; Competency and Monitoring; Evidence Collection and Handling; Test Method Development, Validation/Verification, and Procedures; Quality Assurance; Opinions, Reporting Results and Testimony.

Laboratory Accreditation

Accreditation is a formal recognition by an unbiased and objective third-party accrediting body after an organization demonstrates competence to perform work, impartiality in the work performed, conformance to agreed-upon requirements, and effectiveness in the management system. An accreditation assessment evaluates a sampling of the work performed by the organization seeking accreditation. Assessors review documents and records, conduct interviews with staff, and witness work being performed. This gathered information is used to determine conformance to requirements. Accreditation is not certification of an individual nor is it certification of reported results.

Laboratory accreditation based on ISO/IEC 17025 - General requirements for the competence of testing and calibration laboratories is available for laboratories providing forensic toxicology services. Laboratories that require conformance to consensus-based standards in their standard operating procedures (SOPs) will be assessed to those standards.

Certification

Certification of individuals complements the accreditation of laboratories. Certification is granted by an impartial, third-party certification body to recognize an individual's competence of required knowledge, skills, or abilities. The certification body will determine any minimum qualifications (e.g., education, professional experience, training, and professional references) that must be met to seek certification as well as the characteristics of competence to be evaluated and the mechanism (e.g., written, oral, practical, observational, or other means) to assess these required characteristics. Similar to accreditation, the certifying body conducts a review and attests that the requirements for minimum qualification and competence have been met.

Certification of individuals working in forensic toxicology is available from the American Board of Forensic Toxicology (ABFT). The ABFT requires acceptable annual documentation of continuing professional education and requalification to ensure that individuals maintain their qualifications and continue an acceptable practice of forensic toxicology.

Appropriate Resources

Forensic toxicology laboratories must be properly resourced to meet objectives. Instrumentation, staffing, facilities, and employee development are some of the many factors that influence a provider's ability to accomplish and maintain standards conformance, laboratory accreditation, and individual certification.

Implementation of consensus-based forensic toxicology standards, laboratory accreditation, and individual certification will help meet the recommendations set forth by the NAS report, improve consistency in forensic toxicology testing and testimony, provide greater confidence in reported results, and improve the comparability of data obtained from forensic organizations that can be used to guide alcohol, drug, and impairment policy decisions.

References

American Academy of Forensic Sciences Academy Standards Board (ASB), <https://www.aafs.org/academy-standards-board>

American Board of Forensic Toxicology (ABFT), <https://www.abft.org/>

American National Standards (ANS), <https://www.ansi.org/american-national-standards/ans-introduction/overview>

American National Standards Institute (ANSI), <https://www.ansi.org/>

American Society for Testing and Materials (ASTM), <https://www.astm.org/>

International Organization for Standardization (ISO), <https://www.iso.org/home.html>

National Academy of Sciences (NAS), Strengthening Forensic Science in the United States: A Path Forward, <https://nap.nationalacademies.org/catalog/12589/strengthening-forensic-science-in-the-united-states-a-path-forward>

National Safety Council, Position/Policy Statement, Voluntary Consensus Standards, <https://www.nsc.org/getattachment/9738e955-56cb-441f-99d0-679fb056f2a8/w-voluntary-consensus-standards-11>

NIST Organization of Scientific Area Committees (OSAC) for Forensic Science, <https://www.nist.gov/organization-scientific-area-committees-forensic-science>

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