A2 Certification in the Forensic Sciences

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After attending this presentation, attendees should appreciate the varied certification programs in forensic sciences, understand the different approaches of the medical and criminalistic communities, recognize the important role that individual certification has in assuring stakeholders in the quality of forensic sciences, and grasp the impact certification has had in the courts.

This presentation will impact the forensic science community by revealing the lack of uniformity and impact that certification has had in the forensic sciences, despite its important role in the quality of forensic scientific services and the credibility of forensic sciences.

The *National Academies of Science Report, Strengthening Forensic Science in the United States: A Path Forward*, released precisely a year ago, recommended that certification and accreditation be mandated throughout the forensic sciences. They are indeed both important components of quality assurance.

Certification generally refers to people. Typically "certification" refers to education and/or training short of an educational degree and the issuance of a document. In the case of a professional career field, it can be much more and it is so in the case of most forensic disciplines.

Certifying bodies in forensic sciences include: the American Board of Criminalistics (ABC), the American Board of Pathology (ABP), the Association of Firearms and Toolmarks Examiners (AFTE), the American Board of Psychiatry and Neurology (ABPN), the American Board of Medicolegal Death Investigators (ABMDI), the American Board of Forensic Toxicology (ABFT), the American Board of Forensic Odontology (ABFO), the American Board of Forensic Anthropology (ABFA), the American Board of Forensic Entomology (ABFE), the American Nurses Credentialing Center (ANCC), the International Association of Forensic Nurses (IAFN), the Digital Forensics Certification Board (DFCB), the National Academy of Forensic Engineers (NAFE), the International Institute for Forensic Engineering Sciences (IIFES), the American Board of Forensic Document Examiners (ABFDE), the Board of Forensic Document Examiners (BFDE), and the International Association for Identification (IAI).

Board certification is generally required for practice of a medical discipline and is becoming true for forensic pathology. The National Association of Medical Examiners (NAME) requires forensic pathology (FP) board certification to call oneself a forensic pathologist. It is only conferred after successful completion of an American Council on Graduate Medical Education (ACGME)-accredited medical school, successful completion of a medical board examination, successful completion of an ACGME-accredited pathology residency program, successful completion of an ACGME-accredited forensic pathology fellowship, and passage of anatomic (AP) and forensic (FP) pathology board certification tests, promulgated by the American Board of Pathology (ABP). Despite the large investment of time and resources and even after months of disciplined study, more than one third of all those who take the forensic pathology boards fail and an even higher rate fail the anatomic boards. Applicants are given only three chances to pass. The American Board of Medical Specialties (ABMS), including the ABP, requires recertification through passage of a new board examination every ten years. Maintenance of Certification (MOC) is being implemented which requires continued education and experience in the interval period. Furthermore, state licensure requirements impose additional requirements, which among other things monitor criminal behavior, ethical lapses, and drug and alcohol impairments.

The American Board of Criminalistics (ABC) is the primary certification program for most criminalists, specifically comprehensive criminalistics, drug analysis, fire debris analysis, molecular biology, and trace analysis (hairs & fibers, paints & polymers). Certification requires passage of a rigorous test, in which a sizable percentage of applicants fail. The test includes some general forensics, quality assurance, evidence handling, safety, ethics, and legal questions in addition to knowledge, skills, and abilities (KSA) subspecialty questions. Eligibility for the certification as a Diplomat includes a baccalaureate degree in a natural science or equivalent, two years of full-time experience in the field, and the applicant must be actively working in criminalistics. However, to become a Fellow one additionally needs to maintain successful proficiency testing. Certification must be maintained on a five-year cycle through the accumulation of points based on continuing education and

contributions made to the field. Loss of certification can occur if a Diplomat or Fellow does not accrue the required points or is found to be acting in an unethical manner.

Thus, in both cases, the certification in forensic sciences involves both knowledge and practice. The medical community has emphasized professional practice and as a result most forensic pathologists are currently board-certified, but relatively few medical examiner offices are accredited. On the other hand, the criminalistics community has emphasized technical procedures and as a result most crime labs are accredited; however, relatively few criminalists are certified.

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Many other programs in the forensic science involve knowledge but not skills or practice. In total there are about a eighteen recognized and credible certifying bodies in the forensic sciences. However, anyone can issue a certificate—there is no guarantee that a certificate is meaningful. The Forensic Specialties Accreditation Board (FSAB) accredits such programs as evidence of their credibility.

Judicial scrutiny of the forensic sciences has largely focused on the credentials of the expert. Thus, it is surprising that, to date, the issue of certification has generally been neglected or minimized in the legal foundation of forensic science experts. In fact, most attorneys seem to be unaware of the vagaries of certification in the forensic sciences. Case law emphasizes this lack of judicial focus.

The forensic science community must do a better job in recognizing and broadcasting the importance of individual certification as a foundation for scientific authority within society.

NAS, Forensic Certification, Certifying Bodies

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