B8 Searching for the Silver Bullet of a Unified System to Deliver Forensic Science

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Learning Overview: After attending this presentation, attendees will have learned about practical, operational examples of how forensic science systems have moved toward a more holistic approach to deliver forensic science.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by exploring how selected laboratories and agencies are undertaking changes in recognition of the importance of the crime scene component to the forensic science system. More integrated and holistic approaches are being introduced to improve the ability to identify the most probative samples and produce more meaningful results, with the aim of better use of resources and reduced risks of miscarriages of justice.

The silver bullet of a unified system to deliver forensic science has yet to be broadly implemented. Most existing initiatives focus on research to bring about improvements in laboratory testing. High standards are needed from forensic science, but this cannot be guaranteed from these initiatives alone. One cannot assume that every sample submitted to a forensic science laboratory has the same intrinsic value.

One of the functions of forensic science is to shed light on a past crime event. This requires acceptance of the importance of the scene. As test methods have developed, particularly in the biological area of DNA, the assumption is made that an association between a person and the scene is sufficient. Answering the question who, even when that is possible, is often insufficient to assist in solving the crime. Information on how and when is also needed. Association between scene sample and suspect is just as invalid as accepting correlation as causation. Knowledge of how and when materials transfer is vital and should be just as important as analytical protocols are for a forensic scientist.

If this truism is accepted, it is necessary to review how this knowledge is accumulated, disseminated, and used.

Systems have developed across the world in which crime scene examiners and laboratory personnel are separate groupings, sometimes with limited interaction. It is worth reflecting on how such systems have developed, given the importance of the scene. This presentation explores how certain laboratories and agencies are changing in recognition of this need for integration. Some agencies are introducing more holistic approaches in order to identify the most probative samples and produce more meaningful results.

Research is needed, and education is key in ensuring that all parts of the system from crime scene to court have a shared understanding of the capabilities and limitations of physical findings. All stakeholders need to go beyond validation of test and recovery methods to focus on the more difficult challenges in forensic science. At the moment, the tendency in every sector is to focus on aspects that lend themselves to McDonaldization and focuses on process over outcome. There is clearly a market for such an approach, but in doing so, it is vital to recognize that this is not appropriate for all crimes, and that using the output from a highly processed test facility runs the risk of using the answers to easy questions to incorrectly address the more difficult questions. Although there is no silver bullet of a unified system to deliver forensic science, exploring integration and holistic approaches to forensic science will help to find real ways to improve this complex system.

Laboratory Testing, Case Coordination, Crime Scene

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