

## Legal Factors

### Recognizing Sentinel Events in Forensic Science to Avoid Errors

*Mr. Arthur Young, Guardian Forensic Sciences, United States; Ms. Katherine Cross*

Abstract: "Sentinel events" are a concept from the healthcare industry, whereby "any unanticipated event resulting in death or serious physical or psychological injury to a patient or patients, not related to the natural course of the patient's illness."

News headlines offer crime labs free opportunities to examine their own processes and to determine if they are vulnerable to the same flaws. This presentation will examine a number of headlines from the U.S. and the U.K., as a means of categorizing the underlying causes and the possible remedies thereof. These causes include misplaced trust, analyst incompetence, legal misconduct, and culture clashes between law and science, to name but only a few.

Another free opportunity comes from defense experts, whose comments and criticisms are not always self-serving and profit-driven; sometimes, they're right, which can point to deficiencies in the analyst or an underlying laboratory policy. In either case, however, the laboratory should go and retroactively review any and all affected cases to ferret out additional instances of the same error.

In the last three decades, forensic serologists have all but become extinct, rendered obsolete by forensic DNA analysts. Forensic DNA analysis has done more to free wrongfully-convicted people than any other technology, but it would be foolish to believe that it is fool-proof. But could likelihood ratios incorporating drop-out rates turn it into the new fertile garden of wrongful convictions, when a new and better technology emerges? Only by examining the minefield of mistakes of the past and the present can forensic science hope to move into the future.