



### **G16 Is Toxicological Analysis Necessary in Postmortem External Examinations?**

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After attending the presentation, the attendee will understand the decision process of performing an external examination versus a complete or partial autopsy in medicolegal cases and the potential ramifications of not ordering a full toxicologic panel on cases where a postmortem external examination was performed.

The presentation will impact the forensic community by serving as a critical part in the decision making process of medical examiners in deciding how to analyze medicolegal cases and will serve to augment the literature used to establish the standard of practice for the performance of external examinations.

In many jurisdictions, external examinations are performed rather than complete autopsy examinations in certain types of medicolegal cases. Deaths in elderly patients or deaths after a fall are just a couple examples which may be included in such cases. In many of these cases, the cause of death appears to be readily apparent from the medical records and/ or circumstances of death and toxicology is not performed.

A retrospective review of all external examinations performed at the Bexar County Medical Examiner's Office during a five year period (2003 - 2007) was undertaken comparing cases in which: toxicology was not performed; toxicology was performed but did not alter the cause and manner of death; and toxicology was performed and altered the cause and manner of death.

It was found that in cases where toxicology was performed, the toxicology results altered the cause and/ or manner of death in an average of 1.8% of cases. If toxicology had been routinely ordered on all external examinations at the BCMEO, it would have theoretically altered approximately 21 additional cases during the five-year period.

#### **Toxicology, External Examination, Cause and Manner of Death**