H46 Cremation Clearance by the Medical Examiner: What Is the Best Method?

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Learning Overview: The goal of this presentation is to provide objective data from a single statewide medical examiner system to aid in the determination of whether a physical inspection of a decedent helps detect more unnatural, unreported deaths than just a review of the death certificate/medical records during the process of cremation clearance by the Medical Examiner/Coroner (ME/C).

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing an evidence-based approach to assessing remains for cremation approval by ME/C jurisdictions.

Numerous jurisdictions require the ME/C to investigate decedents that are to be cremated. Since cremation involves the irreversible destruction of the body, a forensic investigation helps ensure that a previously unreported or undetected unnatural death (homicide, accident, or suicide) is not missed. The process of "clearing" these deaths varies by jurisdiction and ranges from reviewing the death certificate to a physical inspection of the body. With the increasing numbers of cremations and staffing challenges to meet this increased workload, it would be useful to know if one method of cremation investigation is superior to another. The goal of this study is to assess if physical inspection detects more unnatural, unreported deaths than a medicolegal investigation without inspection.

In Connecticut, only an ME can certify homicides, suicides, and accidents. All these known or suspected deaths, as well as all cremation dispositions, must be reported to the Office of the Chief Medical Examiner (OCME). All deaths reported by a funeral home to the OCME for cremation clearance in 2012 and 2016 were reviewed. This review compared the rates of subsequent amendments of the death certificates following two different investigative methodologies performed in each year.

In 2012, physical inspection was the investigative protocol for cremation review. There were 10,367 requests for cremation on non-ME deaths. All but one involved the standard protocol of an OCME-trained medicolegal death investigator performing physical inspections of the remains at funeral homes around the state and reviewing the corresponding death certificate.

In 2016, the cremation clearance protocol was changed to no longer require an inspection of the body but rather a review of the death certificate and other pertinent investigative information as needed. This additional information included a review of the medical records and/or discussions with the family, treating physicians, and or police. In 2016, there were 11,906 of these investigations.

Of the 10,367 reviewed deaths in 2012, there were 86 deaths (0.83%) in which the investigation with physical inspection resulted in an amendment to the cause and/or manner of death (82 accidents, 3 natural deaths, and 1 undetermined). Of the 11,906 reviewed deaths in 2016, there were 153 (1.28%) that required amendment to the cause and/or manner of death (107 accidents, 2 delayed homicides, 2 suicides, 8 therapeutic complications, and 34 natural). The accidents included hip fractures, subdural hematomas, and choking deaths. For the detection of accidents, there was no statistically significant difference between the two groups (chi-square $\chi 2=0.8119$, $p=.367552$). In 2012, four of these 86 decedents had subsequent autopsies at the OCME (3 accidents, 1 natural). In 2016, there were 12 that subsequently underwent autopsy (5 naturals, 5 accidents, and 2 homicides).

For cremation investigations, the manpower and costs of performing physical inspections do not appear justified given the similar detection rates for unnatural deaths among the two groups. Review of the death certificate and associated records without physical inspection detects a comparable number of unnatural deaths as does an investigation with inspection. Without any forensic review of cremations, some ME/C deaths are missed and therefore not properly investigated and certified. Since approximately 30% of deaths in Connecticut do not undergo cremation and do not receive any forensic scrutiny, it is likely that there are unreported ME/C deaths in this non-cremation group.

Cremation, Medical Examiner, Investigation

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