



### D59 Death Scene Investigation: The Role of Scene Re-Creation

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After attending this presentation, attendees shall have a basic understanding of both the mechanics of how, and the need for scene re-creations in the field of death investigation.

Attendees from the forensic science community shall be impacted by factors associated with scene re-creation and how critical it is in determining cause and manner of death in infant death investigations, as well as, the need to standardize and improve data collected at infant death scenes.

When an infant dies suddenly and unexpectedly after being placed down to sleep, a thorough infant death scene investigation cannot be accomplished without a re-creation of the sleep environment. The re-creation is a critical part of the medicolegal death investigation and is necessary for an accurate certification of cause and manner of death. The CDC's SUID Initiative is aimed at improving the accuracy and consistency of the reporting and classification of SUID deaths. Case examples will be presented demonstrating practical application of the scene recreation technique to be utilized during infant death investigations, as well as, extending this application for investigations of older children and adult deaths.

In 2007, there were 127 sudden, unexpected deaths of infants under the age of one year reported to the Child Fatality Review Program in Missouri. Based on autopsy, investigation and CFRP panel review, 15 were diagnosed as Sudden Infant Death Syndrome (SIDS), 59 Unintentional Suffocation, 25 Illness/Natural Cause, and 23 could not be determined. Four infants were found to be victims of homicide and one infant's death was determined to be an accident, resulting from exposure to excessive heat. Those five deaths are discussed under "Fatal Child Abuse and Neglect."

Of the 127 sudden, unexpected infant deaths in Missouri in 2007, a scene investigation was completed in 122 cases (96%); 60 (49%) of those were completed by a medical examiner or coroner or their investigator.

The SUIDI Reporting Form is one of the many tools available to professionals involved in the investigation and evaluation of all child deaths. The reporting form has been refined and updated over time, and provides a guide to the investigator, regardless of experience level, to consistently collect the information necessary for an accurate determination of the cause and manner of death.

The goals of the SUID Initiative are to develop tools and protocols to: standardize and improve data collected at infant death scenes; promote consistent diagnosis and reporting of cause and manner of death for SUID cases; prevent SUIDs by using improved data to monitor trends and identify those at risk and improve national reporting of SUID.

In some cases, even the most thorough autopsy and scene investigation do not produce a definitive cause of death, in 2007, the cause of death of 23 Missouri infants could not be determined, yet risk factors are present that are significant enough to have possibly contributed to the death. One such risk factor is an unsafe or challenged sleep environment. Recent studies of epidemiological factors associated with sudden unexpected infant deaths, demonstrate that prone sleeping and the presence of soft bedding near the infant's head and face pose very strong environmental challenges, by limiting dispersal of heat or exhaled air in the vast majority of cases. The extent, to which, such environmental challenges play a role in a particular sudden infant death, often cannot be determined. Therefore, a sudden unexpected infant death involving an unsafe sleep environment would be classified as undetermined, when unintentional suffocation is not conclusively demonstrated by the scene investigation.

In conclusion, this presentation will address practical applications on how to incorporate a scene recreation doll as an investigative tool to be utilized during infant death investigations. This tool will enhance an investigator's ability to conduct a thorough infant death scene investigation.

**Scene Re-Creation, Infant Death Investigation, SUID**