



Pathology Biology Section – 2009

G43 Role of Scene Reconstruction in the Medicolegal Investigation of Sudden Unexpected Infant Deaths

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After attending this presentation, attendees will recognize the value of scene reconstruction as a routine component of infant death scene investigation.

This presentation will impact the forensic community by showing how medicolegal death investigators can enhance the quality of their scene investigations and provide valuable information that may be used to prevent or reduce future infant deaths.

Complete investigation of sudden unexpected infant deaths requires scene investigation, full autopsy, and review of the case history. Careful scene investigation is crucial, not only for understanding why one particular infant died, but also for developing valid strategies to prevent future infant deaths. This presentation examines the techniques and value of doing scene reconstruction as part of a rigorous investigation of a sudden unexpected infant death.

The King County Medical Examiner's Office (KCMEO) investigates all sudden unexpected infant deaths using: (1) a standardized scene investigation protocol, (2) a complete autopsy including microscopic examinations, toxicology, metabolic screening, and microbiological cultures when indicated, and (3) review of the case history with police and child protective agencies. For this study, the computerized KCMEO database from 1995 to 2008 was searched for all deaths of children between the ages of one week and three years. These were then analyzed to group the deaths by manner of death and further subclassify natural death. In addition, the photographic records of KCMEO were individually reviewed to find cases in which scene investigation included scene reconstruction. The cases in which scene reconstruction yielded information important for certifying cause and manner of death were then selected as examples to demonstrate the techniques of this investigative tool and its value for the overall death investigation.

Between 1995 and 2008, 505 deaths of infants and young children from one week to 3 years of age were recorded in the KCMEO database. Of these 505 deaths, 326 of these were classified natural, 107 accident, 2 complication of therapy, 47 homicide, and 23 undetermined. There were 232 deaths that were certified as SIDS. During this time period, 151 deaths were investigated using a doll or similar prop to reconstruct the scene in which the caregiver found the child dead. The scene reconstruction included instances of natural deaths, accidents, and deaths certified as undetermined.

Scene reconstruction is an essential part of the investigation into the death of an infant or young child. Invariably the death scene is disturbed and therefore requires a patient, well-trained, experienced, and compassionate investigator to uncover the details surrounding the death. Using a fabricated, stuffed doll or similar prop, and working patiently with the caregiver is the best means for establishing the location and position in which the child was last seen, the usual position for sleeping, and the position when found unresponsive. Furthermore, this method supports a photographic record that is fairly acceptable to the caregiver(s) and that can later be used to demonstrate the death scene in an emotionally neutral manner. Risk factors and hazards, including bed sharing, present in the child's environment can be readily documented and demonstrated with respect to the specific hazard and the way in which the hazard is responsible for the death. Witness reliability can also be assessed with this technique. As important as scene reconstruction proves to be, there are several obstacles in utilizing this method. Emergency medical personnel frequently disrupt the integrity of the scene by transporting babies that they know are dead to the hospital emergency department; this practice must be strongly discouraged. The death investigator, agency, or otherwise well-meaning individuals may feel that scene reconstruction is too invasive into the caregiver(s) grief and privacy. Training, experience, and compassion are needed to overcome this obstacle. There is the valid concern that a caregiver or witness may not be reliable in reconstructing the scene for the investigator(s). Again, experience has shown that patience and compassion are the most valuable qualities for gaining witness trust and revealing the truth. In conclusion, scene reconstruction provides invaluable information, and therefore, should be considered one of the standards for a quality infant death investigation.

Medicolegal Investigation, Sudden Infant Death Syndrome, Scene Reconstruction