



## Pathology Biology Section – 2010

### G3 Pediatric Deaths in Harris County

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After attending this presentation, attendees will gain a better understanding of the types of pediatric deaths investigated in Harris County, Texas and will be exposed to the extensive pediatric death investigation and autopsy procedures employed in our office.

This presentation will impact the forensic community through the documentation and discussion of almost 900 pediatric deaths.

Pediatric deaths pose a unique and sometimes complex set of challenges for forensic investigators. As is typical in other cases, information is gathered from family members regarding the events leading up to the death. In infant deaths, the parents must be interviewed with as much detail as possible in order to document the correct set of circumstances. This is often very difficult to do when the parents are extremely distraught and when they are the potential suspects. Because babies and small children may have injuries that aren't apparent at the scene or emergency room, all deaths need to be thoroughly investigated beginning as soon as proper officials are notified. This can sometimes cause emotional duress and resistance to talk on the part of the parents. With experience, understanding, and a standard infant death investigation procedure, these obstacles can be overcome.

The Harris County Medical Examiner's Office (HCMEO) is located in Houston, Texas, serving a population of 3.9 million (per 2008 data from the Office of the State Demographer, Texas State Data Center). Additionally, contract services are provided to seven counties in the surrounding area. Approximately 16,000 deaths are reported each year and an average of one-fourth are brought in for either an external examination or a full autopsy. Discussed in this presentation will be the extensive investigative and autopsy procedures, including photographic documentation of the scene, special techniques and consultant assistance.

Over a four year period beginning January 2005, the HCMEO assumed jurisdiction of 870 deaths involving children 10 years of age or younger, 12.3% of which were homicides. Deaths in which an infant is found dead or unresponsive while sleeping with an adult are classified as undetermined (co-sleeping) in our office, allowing for tracking of this risky behavior. Documented wedging or overlays are classified as accidents. The diagnosis of Sudden Infant Death Syndrome (SIDS) is utilized when all investigative and autopsy findings fail to reveal a cause of death in a child under the age of one. The average rate of SIDS deaths over the four year study period is 12% (104). As expected, non-motor vehicle related accidents account for the majority of the deaths, with an average of 21.6% (188).

Statistics will be reviewed in detail for each year of the study and discuss the significance of the trends with regards to co-sleeping, asphyxial deaths, drowning, and child abuse. An unfortunate occurrence in our hot climate is the yearly cluster of heat related deaths due to children being left in motor vehicles and the increasing number of drownings. An alarming statistic discovered from this study is that the number of child deaths due to homicide is higher than those due to motor vehicles. Preventable deaths need to be targeted and all reasonable attempts need to be made to educate parents and caregivers of the dangers of leaving children in hot cars, unsupervised in swimming pools, co-sleeping with small infants, and other inappropriate sleeping conditions that may result in a child's death.

**Pediatric Deaths, Homicides, Co-Sleeping**