



Pathology & Biology Section – 2004

G38 A Cluster of Child Deaths: A Medical Examiner System Participates in an Epidemiologic Investigation in Virginia

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After attending this presentation, attendees will learn how to recognize a developing cluster of deaths in children; how to cooperate with the Centers for Disease Control, local and national laboratories, and public health departments in analyzing the deaths of individuals involved in a cluster, allaying public fears, and meeting media demands; and to avoid mistakes previously made.

This presentation will impact the forensic community and/or humanity by increasing the ability to recognize a developing epidemiological cluster, and how to optimally communicate with all parties involved, including colleagues at a local and national level, parents and relatives of the decedents, the “worried well,” and the media.

A two-year-old girl with a history of multiple upper respiratory infections, and a prodrome of a week of ear pain and fever, presented to an emergency room at 0300 in the morning with a fever of 102 degrees F. She was diagnosed with otitis media, and prescribed antibiotics. Five hours later, she was found dead in bed. Autopsy showed no evidence of bacterial infection; a viral infection was suspected. On the day of her autopsy, a three-year-old boy was diagnosed at a local military hospital clinic with a viral upper respiratory infection. He died in his sleep at home the next morning, after lying on the living room floor watching cartoons, with his mother asleep nearby on the couch. Within three days, two more children in the same geographic area had died at home after short febrile illnesses. When the four deaths were reported, media attention and public concern became intense.

The medical examiner system of the Commonwealth of Virginia was put on alert, and invited the Center for Disease Control to participate in analyzing the developing cluster, utilizing fluids and tissues obtained at autopsy. Two more children died in the following week, and three more in the next ten days. Early results were conflicting and noncontributory. Several weeks passed before it could be determined that this was a temporal cluster of unrelated childhood deaths, that there was no single pathogen responsible, and that the public had been protected.

This half hour discussion follows the experience of multiple medical examiners within a single statewide system coping with an unexplained cluster of child deaths. We review the recognition of the development of the cluster. We re-examine how we dealt with the issues of cooperation with public health colleagues, the CDC, and the laboratory, as well as communicating optimally with each other, the bereaved parents, the media, and the public. We revisit how we learned to utilize the CDC's expertise and resources, while performing optimal post mortem examinations within our medical examiner system. It was necessary to implement new methodologies that were foreign to our system, if well known to the CDC, and to develop new networks of communication as we relied upon colleagues in different states and many different institutions. The goal was to find answers for grieving families, bewildered colleagues, a hysterical public, and the voracious media. Special attention will be paid to the mistakes that were made, and how they could have been handled differently.

Child Death, Epidemiologic Cluster, Infectious Etiology