



E64 Drowning in the District: A Ten-Year Retrospective Review of Cases in the Nation's Capital

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Learning Overview: The goals of this presentation are to discuss: (1) the epidemiological profile of District of Columbia drowning cases, (2) common pre-drowning activities, (3) challenges in determining the manner of death when a body is found in water, and (4) recommended investigative protocols.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by adding to the body of knowledge of medicolegal investigation of drownings in natural and man-made waterways.

The District of Columbia has a resident population approaching 700,000 and a daily surge in population of workers and tourists. The District of Columbia also has natural and man-made waterways that are highly accessible, yet drowning is a rare phenomenon. For this study, the Office of the Chief Medical Examiner's case management system was searched for the keyword "drowning" in the cause-of-death statements for all accepted cases from 2007-2016. Of the approximately 12,000 accepted cases in this ten-year period, only 100 deaths were attributed to drowning. The results were further filtered by "injury address" to identify deaths occurring in waterways, and 49 cases were identified. Finally, case files were reviewed in order to identify the epidemiological profiles of the decedents and to obtain descriptions of their pre-drowning activities.

In this study, all decedents were identified. The vast majority of decedents were male, which is consistent with published literature. The racial breakdown was as follows: 49% Black, 33% White, 12% Asian, 4% Hispanic, and 2% Other. The percentage of Asian decedents was overrepresented in drowning cases as compared to all other types of medical examiner cases. The age range for decedents was 11 to 76 years with a mean of 45 years old.

Drownings occurred in rivers in 78% of cases, man-made waterways in 16%, and creeks in 6%. The manner of death was Undetermined in 43%, Accident in 31%, and Suicide in 26%. This study may have a higher percentage of Undetermined drownings since the pre-drowning activities were often difficult to identify as the decedents' entry into the water was unwitnessed in 76% of the cases. In the witnessed cases, decedents were involved in recreational activity, lived on/near the water, or intentionally entered the water to commit suicide.

In addition to the challenges of identifying a decomposed "floater," this presentation will discuss two equivocal cases that illustrate the challenges of determining the manner of death. This presentation will conclude with a list of recommended protocols for the medicolegal investigation of bodies found in water.

Investigation, Drowning, Natural Waterways