



Pathology & Biology Section – 2004

G11 Significant Trends in Work-Related Deaths — United States

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After attending this presentation, attendees will become familiar with work-related deaths and how to investigate them properly.

Both the general public and forensic scientists will realize that there are hazards inherent in every form of work, whether sedentary, or involving physical labor. Prevention of work-related deaths involves recognition of hazards; personal protective equipment; instilling proper work practices; and monitoring the workplace. It will be recognized that most important of all is a persistent commitment to safety by both management and labor. While there has been a significant decrease in work-related deaths over time, many still occur, and many of these are preventable.

In recent years, work-related deaths have ranked second only to motor vehicle accidents as a category of accidental deaths in the USA. It is vital that the forensic scientist be familiar with all aspects of work-related deaths because of their frequency; the often time-consuming and complex nature of a proper investigation; and because these deaths often have implications for the living as well, in the context of prevention. A significant number of these deaths result in litigation - civil, criminal, or both.

Investigation of work-related deaths involves thorough examination and documentation of the scene of death, with expert consultation when indicated; a complete autopsy, including toxicology; and clear statement of conclusions of the investigation as warranted by the evidence.

Four significant trends in work-related deaths in the USA are apparent from experience and review of the literature. 1 - A significant decrease in the number and incidence of work-related deaths particularly since the turn of the 20th century, as well as in the past 20 years 2 - Mining and quarrying; construction; and agriculture in that order were formerly the three industries in which the largest numbers of work-related deaths occurred. Due to significant improvements in safety in mining and quarrying, and in agriculture, the three leading industries are now construction, transportation, and manufacturing. 3 - Work-related deaths due to gunshot were formerly infrequent. Since 1990, however, homicide has been the second-leading cause of work-related deaths in the USA. Homicide is the leading cause for females. 4 - Deaths due to collapses of open-trench excavations in construction, although preventable, continue to rise.

Illustrative cases: Construction - a motor-vehicle accident, the leading cause of work-related death. Deaths at two construction sites, one presenting the coroner with an unusual responsibility Open-trench excavation - a death resulting in both a large fine stemming from OSHA citations, and a civil lawsuit. Homicide - While the great majority of work-related homicides are committed by fellow workers, each of these two cases is a law enforcement officer shot and killed by another because of mistaken identity during a crisis. Manufacturing - death in a chocolate candy factory Death from immersion in a vat at a paper mill Accidental death of a lawyer at work

Conclusions: The investigation of work-related deaths is challenging. It requires broad knowledge of various fields of work, and of the dangers inherent in each. Investigation must be both wide-ranging, yet focused. All findings must be rigorously documented.

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Work-Related Death, Homicide, Investigation