



D18 A Cross-Sectional Study Road Traffic Fatalities and Vehicular Homicide Investigation Practices in Denmark for 2000-2004

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After attending this presentation, attendees will be acquainted with road traffic fatalities and vehicular homicide investigation practices in Denmark.

This presentation will impact the forensic science community by examining vehicular homicide investigation practices in Denmark, as the results indicate a number of limitations to these practices.

Unlike the relatively universally uniform criteria for criminal prosecutions associated with deaths resulting from violent assaults, the criteria for when to prosecute for vehicular homicide in a traffic crash fatality is quite variable between countries. Some of this variability is likely due to the fact that there are no widely accepted standards for what constitutes a comprehensive investigation of a potential vehicular homicide case. Police and medicolegal investigation practices of such cases in the Aarhus, Denmark Police District over a five year period were evaluated in order to assess the consistency of various practices used to investigate traffic fatalities.

Police investigation reports were obtained for all road traffic fatalities for the years 2000 to 2004 (inclusive) in Aarhus Police District, Denmark, an area with a population of approximately 333,000 people. A total of 81 crashes were found, with 209 individuals involved comprising 92 deaths, 61 injuries, and 56 uninjured people. Data concerning the circumstances of each crash were gathered along with information relating to the judicial course of each case, including prosecution, conviction, and sentence. Additional information from the autopsy report was correlated with the police investigation findings when an autopsy had been performed. The data were pooled and described.

Postmortem examination was performed in 17 of the 92 decedents (18%). Analysis for blood alcohol was performed in 55 (60%) of decedents, of whom 20 of the 55 (36%) were positive, and 17 of 20 positives (85%) had a BAC > 50 mg/dl. Toxicological investigation for prescription narcotics and the most common illicit drugs (i.e., cannabis and amphetamine) was performed in five (5%) of decedents, of which two (40%) were positive. There were a total of 80 surviving drivers, 42 of whom (53%) were tested for alcohol and one was tested for drugs/medicine. Amongst the surviving drivers the police investigation resulted in 33 (41%) cases of potential culpability. Of these 33 investigated drivers, 22 (67%) were tested for alcohol, with only one positive result (5%) and one was tested for drugs, with a negative result. A total of 28 of the 33 potential offenders were charged with one or more violation, whereas five of the investigated potential offenders were not charged at all. Twenty-six of the 33 were charged with manslaughter under Danish law (§241). Of the remaining 47 drivers who the police investigation did not reveal potential culpability, 20 (43%) were tested for alcohol, and one of the 20 (5%) was positive. Of the 92 decedents, 61 were drivers, and 41 of these (67%) were tested for alcohol, with 12 positive results (29%).

Postmortem examination was poorly correlated with fatalities in which there was a manslaughter charge; of the 26 cases where there had been such a charge, only three autopsies were performed, yielding a rate of comprehensive medicolegal death investigation in criminal traffic crash death cases of 12%. In contrast, in the 54 cases in which a driver survived but was not charged with manslaughter, there were a total of 12 postmortem examinations, yielding a rate of comprehensive medicolegal death investigation of the cases where the police did not reveal any culpability that was almost double that of the cases charged with manslaughter (22%). Although the number of fatalities in the present study was relatively small, the population represented by the Aarhus Police District was considered to be representative of Danish practices in general, as Aarhus is the second largest police district in Denmark, surpassed only by Copenhagen. The results of the present study raise a number of questions concerning criminal investigation of Danish traffic crash fatalities. In contrast with common practice in the U.S., in which the most common reason for a criminal charge in a traffic fatality is intoxication of the offending driver, a large proportion of Danish drivers (one in three) were charged with a serious crime when alcohol presence was present in only one of the investigated surviving drivers, and autopsy was performed in less than one in five decedents. It appears that there is a lack of a standardized protocol for the investigation of potential criminal traffic crash fatalities in Denmark.

Further study is needed to determine if the results from Aarhus are consistent throughout Denmark. If this is found to be the case, a reappraisal of Danish practices concerning investigation of traffic crash homicides is warranted.

Vehicular Homicide, Postmortem, Toxicology