



H148 Non-Natural Deaths on Hospital Property: A Five-Year Retrospective Review of Cases From Harris County, Texas (2014–2019)

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Learning Overview: After attending this presentation, attendees will understand the most common scenarios for non-natural deaths on hospital property (including outpatient clinics and doctor offices) in Harris County, TX, which includes the city of Houston and surrounding municipalities.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by increasing awareness of fatal incidents apart from adverse events of medical care that can lead to death while on hospital property. The forensic community can play a vital role in injury prevention by tracking these deaths and educating the local health care institutions about these occurrences, as well as by identifying and potentially mitigating risk factors.

The current patient safety culture in the hospital setting largely focuses on adverse events (i.e., injuries that occur due to complications of medical management rather than the disease process itself) or falls while in the hospital setting.^{1,2} Literature delving into other non-natural deaths occurring in the hospital setting—or while on hospital property—is much sparser.

The database of deaths from the Harris County Institute of Forensic Sciences was searched from 2014 to 2019 using “hospital” as a search term in both the injury address and injury place. Neonates discovered dead, or who remained comatose and eventually were pronounced brain dead following being found unresponsive while in the hospital, were also included.

Study results revealed that deaths from intracranial hemorrhage due to falls remain, by far, the most common cause of non-natural death in the hospital setting; such deaths included falls in hospital parking lots. Suicides, in this study, included both patients recently discharged from psychiatric inpatient settings and those who were not admitted at all, but simply committed suicide on hospital property. In the former case, deaths were usually attributable to jumping from heights, such as parking structures, while in the latter case, deaths typically resulted from gunshot wounds in the parking lot. In this study, recently discharged patients most often killed themselves within hours of their discharge. Homicide deaths due to gunshot wounds occurring inside a hospital were identified but were rare, as were work accidents. Deaths due to airway obstruction (i.e., choking on a food bolus) all occurred during mealtimes.

A steady trend across all five years of the study is accidental death due to acute illicit drug toxicity by admitted patients, the majority of whom were admitted for diagnoses unrelated to acute drug withdrawal or inpatient rehabilitation and brought the drugs with them. This current study suggests that new strategies to help combat illicit drug deaths while in the acute care setting would be beneficial to overall patient safety.

Reference(s):

1. Brennan, Troyen A., Lucian L. Leape, Nan M. Laird, Liesi Hebert, A. Russell Localio, Ann G. Lawthers, Joseph P. Newhouse, Paul C. Weiler, and Howard H. Hiatt. 1991. Incidence of Adverse Events and Negligence in Hospitalized Patients. *NEJM*. <https://www.nejm.org/doi/pdf/10.1056/NEJM199102073240604?articleTools=true>.
2. Schwendimann, René, Hugo Bühler, Sabina De Geest, and Koen Milisen. 2008. Characteristics of Hospital Inpatient Falls across Clinical Departments. *Gerontology* 54 (6): 342–48. <https://doi.org/10.1159/000129954>.

Hospital Property, Patient Safety, Non-Natural Deaths