

Death Certificates vs. Autopsy Reports: Misclassification of Causes of Death Among USTUR Registrants

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The U.S. Transuranium and Uranium Registries performs autopsies on each of its Registrants as a part of its mission to follow up occupationally-exposed individuals. This provides a unique opportunity to explore death certificate misclassification errors, and the factors that influence them, among this small population of former nuclear workers. Underlying causes of death (UCOD) from death certificates and autopsy reports were coded using the 10th revision of the International Classification of Diseases (ICD-10). These codes were then used to quantify misclassification rates among 275 individuals for whom both death certificates and autopsy reports were available. The ICD-10 categorizes diseases using 22 chapters. Death certificates incorrectly identified the UCOD ICD-10 disease chapter in 25.5% of cases. The misclassification rates for the most common disease chapters were: 9.9% neoplasms, 16.4% circulatory, 37.5% nervous system, 59.3% respiratory, and 18.7% external causes. A logistic regression revealed that both clinical history and the use of autopsy findings have a statistically significant influence on the match rate. Calculating the odds ratio for clinical history indicates that the odds of a match were 2.7 times higher when clinical history was mentioned on the autopsy report than when it was not. Similarly, when cases in the unknown autopsy influence group were excluded, the odds of a match were 4.0 times higher when death certificates were completed using autopsy findings than when autopsy findings were not used.

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