Department of Urology, Medical Student Research Project

Roderick Clark, 2013

Title: Understanding the burden of Kidney Cancer in Nova Scotia: Utilization of Administrative and Cancer Registry data to determine Kidney Cancer Mortality

Introduction: Increasing numbers of small renal cell cancers are being detected and followed longitudinally without surgical intervention. As additional cases of kidney cancer are identified, we need to ensure that methods of identifying these individuals in provincial cancer registries are effective.

Methods: This study evaluated the impact of using provincial physician billing data in addition to provincial cancer registry data to identify individuals with kidney cancer and also to quantify its burden.

Results: A total of 3111 individuals were identified using both data sources: 1675 individuals were identified only in physician billings data, 424 individuals were identified only in the CCNS cancer registry, and 1012 individual were identified within both data sources. 243 individuals found only within administrative data and 220 individuals identified within administrative and CCNS registry data died during years observed. 328 of 1,199 individuals (27.3%) with kidney cancer, 106 of 681 individuals (15%) with kidney disease other than malignancy, and 29 of 357 individuals (8%) with kidney cysts died during the study years. The Logrank test showed significant survival differences between these three groups (X^2: 52.25 $Pr>X^2$:0.000)

Conclusion: Linking administrative and cancer registry data sources enhances our ability to more accurately determine the burden of kidney cancer. Our analysis of survival with kidney cancer and associated conditions further demonstrates that this linked data source can be used to make inferences about kidney mortality.