

## Survival of Patients with Neuroendocrine Cancers in Ontario Over Last 15 Years

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**Background:** There has been increased incidence of neuroendocrine tumours (NETs) in Ontario, Canada over the last 15 years but little is known about trends in survival. The aim of this study is to examine the survival and associated prognostic factors of NET patients in Ontario.

**Methods:** A population based study was initiated using the Ontario Cancer Registry, cross-linked with the Registered Persons Database and the Canadian Institute of Health Information Discharge Abstract Database. All cases of NETs were identified in Ontario (> 13 million persons) from 1994 to 2009. Baseline demographic, clinical and outcomes data were abstracted. A multivariate cox proportional hazards analysis was performed.

**Results:** A total of N = 5619 cases were identified. Probability of recurrence free survival/overall survival at one, five and ten years was 0.81, 0.71 and 0.65 vs 0.81,0.61 and 0.47 respectively. Probability of recurrence was 0.40 years and 0.21 at 5 and 10 years. Significant predictors of death included male sex (HR=1.30), age at diagnosis (HR=1.04), rural resident (HR=1.135) and lowest income quintile (HR=1.24). Pancreas primary (HR=1.38) was most associated with death and rectum (HR= 0.34) and small bowel (HR=0.61) were least.

**Conclusions:** Poor outcome factors include male sex, age of diagnosis and pancreas primary. Rural residence and low income were also associated with poor survival, perhaps due to less access to specialized NETs care. This issue requires further examination as does causes for decreased survival among men with NETs.