

# **Epidemiology of Gastrointestinal Neuroendocrine Tumors (GI-NET) in the US: Analysis of 2 Large Insurance Claims Databases**

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**Background:** U.S. incidence of all NET increased from 10.9 cases per million person-years (PMPY) in 1973 to 52.5 PMPY in 2004 as reported in SEER (Yao et al, 2008). Prevalence was reported as 216 per million per year for GI NET. It is anticipated that incidence and prevalence may be increasing, but trends beyond 2004 are unknown.

**Methods:** Retrospective, cross-sectional study using 2010-2014 data from 2 US claims databases: MarketScan and PharMetrics. Patients were 18-64, and had  $\geq 1$  inpatient or  $\geq 2$  outpatient claims with NET of GI tract (excluding pancreas), identified by ICD-9 codes. Prevalence was number of GI-NET patients divided by number of enrollees/year. Incidence was number of patients with first observed NET diagnosis who were disease-free for 2 years prior, divided by number of enrollees.

**Results:** For years 2010-2014, there were 1,898-2,808 and 1,507-1,895 GI-NET cases/year in MarketScan and PharMetrics respectively. Prevalence increased 90.8-131.2 per million per year between 2010 and 2014 in MarketScan and 71.1-108.9 in PharMetrics; increased with age and was highest (146.5-281.5 depending on year and data source) in 55-64 year olds; and was 74.3-141.6 in females and 67.7-119.7 in males. Incidence increased in both datasets from 2011 to 2014: 67.0-79.1 PMPY in MarketScan and 47.4-58.2 PMPY in PharMetrics.

**Conclusion:** In both databases, incidence and prevalence of GI-NET increased considerably from 2010 to 2014. This increase may be due to better diagnostic methods, increased awareness of NET among clinicians and pathologists, and/or an actual increase in disease occurrence in the US population. These results suggest the need for awareness of the clinically effective and safe treatment options available for GI NET patients among healthcare providers. N.B. Reused with permission from the American Society of Clinical Oncology (ASCO). This abstract was accepted at the 2016 ASCO Annual Meeting. All rights reserved.