

# Treatment Patterns, Clinical Outcomes, and Health Care Resource Utilization in Patients with Metastatic Gastroenteropancreatic Neuroendocrine Tumors (mGEP-NETs)

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**Background:** Lanreotide was approved in 2014 by the FDA for mGEP NETs to improve progression free survival. It's important to understand the recent treatment patterns, clinical outcomes, and healthcare resource utilization (HCRU) for patients with mGEP-NETs.

**Methods:** A retrospective study was conducted using the iKnowMed electronic health record data from the US Oncology Network (USON). Adult patients diagnosed with mGEP-NET from 1/1/2008 to 12/31/2012 were included. Demographic/clinical characteristics, treatment patterns, and HCRU were described. Overall survival (OS) was analyzed using Kaplan-Meier method and Cox regression models.

**Results:** Of the 229 patients included, median age was 64.0 and primary tumor sites were small bowel (47.6%), pancreas (31.4%), and other (21.0%). Among 192 patients who received treatment, 77%, 12%, and 10.9% of them received somatostatin analogs (SSAs) monotherapy, chemotherapy, and targeted agents as 1st line therapy respectively. Octreotide LAR (OCT) represented 98% (145/148) of SSA usage. 50% (72/144) of patients receiving OCT had a relative dose intensity < 85%, and 16.7% (24/144) received above-label dosing (>30mg/4weeks). Most common adverse events (AEs) of SSAs were diarrhea (18.2%), abdominal pain (16.9%), and fatigue (13.5%). Median OS was 68.0 months (95% CI [57.1, Not Reached]) for the overall cohort. OS was longer in small bowel NETs than in pancreatic (pNETs) or other NETs (median OS 68.0 vs 49.1 vs not reached, p=0.016). Cox regression analysis suggested that age, BMI, and tumor site were significant prognostic factors. Patients with pancreatic NETs tended to have more hospital or emergency visits (69.4%, 31.9%) than patients with small bowel (61.5%, 22.0%) or other NETs (52.1%, 18.8%) respectively.

**Conclusion:** SSAs were the main treatment after diagnosis of mGEP-NETs. Dosing variation of OCT suggest an individualized dosing approach is used. OS and AEs were consistent with other studies. Patients with pancreatic NETs appeared to have higher HCRU than other tumor sites.