

# C-16

## Real-world Analysis of Long-Term Treatment Patterns in Patients with Advanced Gastrointestinal Neuroendocrine Tumors (GI NET): A Multicenter Study

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**BACKGROUND:** Limited data are available to document recent treatment paradigms that span NET disease course. This study aimed to report long-term, real-world treatment patterns of advanced GI-NET patients based on data from four tertiary cancer centers (Dana-Farber, MD Anderson, UCSF, and Northwestern).

**METHODS:** Retrospective chart review was conducted in patients diagnosed with advanced, well-differentiated GI-NET at age  $\geq 18$  years and treated with somatostatin analogs (SSAs), targeted therapy (TT), cytotoxic chemotherapy (CC), peptide-receptor radiotherapy, liver-directed therapy (LDT), or interferon from 7/2011-12/2014. Eligible patients were followed from advanced NET diagnosis date (earliest recorded diagnosis: 3/1987) to end of follow-up/death (latest recorded date: 5/2017). Analyses of treatment and dosing patterns were performed and persistence of therapy was estimated using Kaplan-Meier analysis.

**RESULTS:** 273 patients were included with the mean age of 59 years at advanced NET diagnosis; 64% had functional NET; 57% had ileum as primary tumor site, and 63% had carcinoid syndrome (CS). Most common CS symptoms were diarrhea (87%) and flushing (73%). Majority of patients were treated with SSAs: octreotide alone (88%) or in combination (2%) with LDT/TT/CC, and pasireotide alone (0.4%; 60-120mg/month) as first-line. Other first-line treatments included LDT (8%) and CC/interferon (2%). Of the 161 patients on second-line, 93% were treated with SSAs: octreotide alone or in combination (89%), lanreotide (3%; 90-120mg/4 weeks), and pasireotide (1%). Other second-line therapies included LDT (4%) and TT/CC/external-beam radiotherapy (3%). Most common dose at initiation for octreotide was 30mg/4 weeks (51%) and 20mg/4 weeks (32%); 65% of patients received less than or equal to 30mg/4 weeks over the entire treatment course. Median time to treatment discontinuation was 154 months for first-line SSA-based therapy.

**CONCLUSION:** SSAs, specifically long-acting octreotide observed in this study, are widely used in treating advanced GI-NET in first- and second-line therapy and patients remain on SSA long-term.