

Real-World First-Line Treatment Patterns Among US Carcinoid Syndrome Patients

Gordon H. Sun, MD, MS¹; Maureen P. Neary, PhD²;
Eunice Chang, PhD¹; Michael S. Broder, MD, MSHS¹

¹Partnership for Health Analytic Research, LLC, Beverly Hills, CA 90212

²Novartis Pharmaceuticals Corporation, East Hanover, NJ 07936

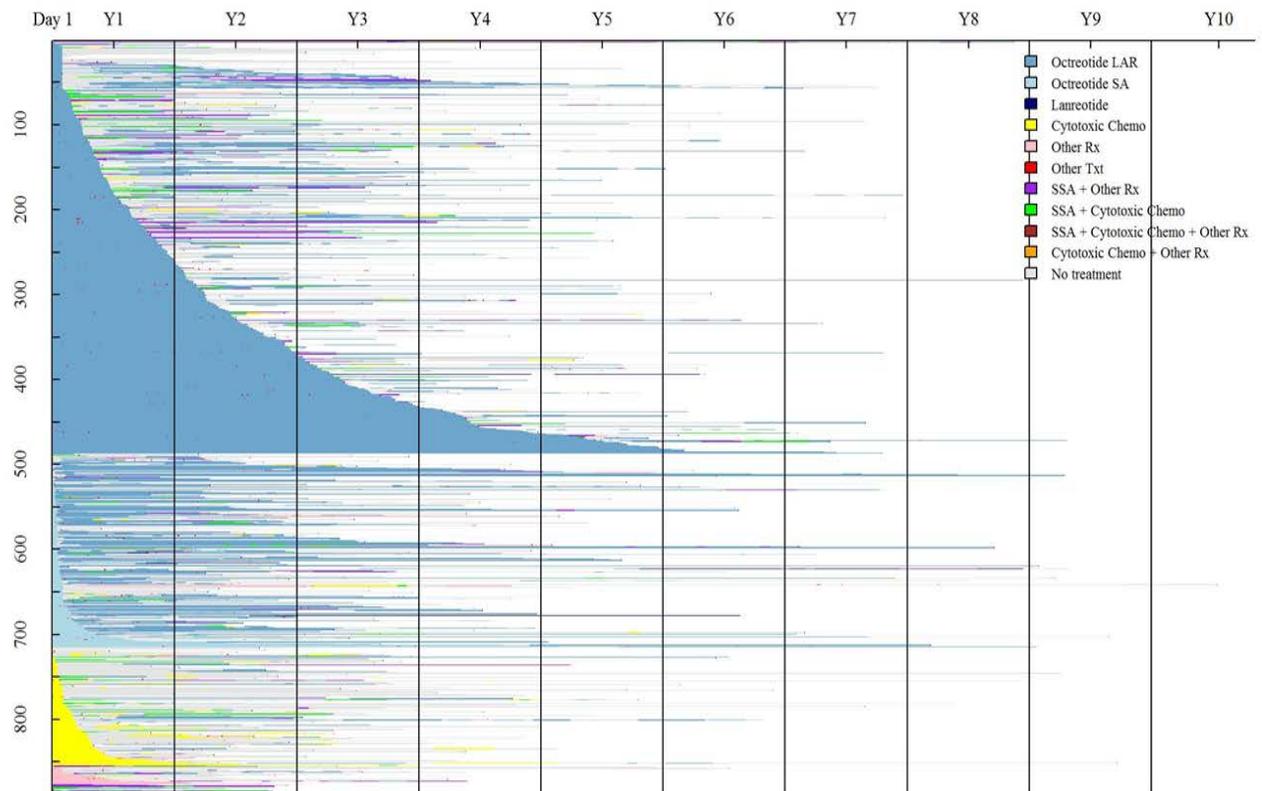
Background: Initial systemic therapy for carcinoid syndrome (CS), a condition caused by active neuroendocrine tumors, often consists of somatostatin analogues such as octreotide. However, treatment patterns in real-world practices have not been well described.

Methods: We conducted a retrospective cohort study using MarketScan® data from 1/1/2003 - 12/31/2012. Newly diagnosed CS patients had 1 medical claim for CS (ICD-9-CM code 259.2) plus either ≥ 1 additional claim for CS or ≥ 1 for carcinoid tumors (ICD-9-CM 209.x), and had no evidence of CS for 1 year prior to index CS diagnosis. Among these patients, we identified those who received a pharmacologic agent as first treatment, including octreotide LAR, octreotide SA, lanreotide, cytotoxic chemotherapy (doxorubicin, fluorouracil, cisplatin, etoposide, temozolomide, streptozocin), and other drugs (everolimus, sunitinib, interferon). A graphical program was used to describe treatment patterns for each patient. Time period of observation for some may be limited by early disenrollment in the database.

Results: There were 2,822 newly diagnosed patients with CS in any diagnostic field; 885 received a pharmacologic agent as first treatment. Of these, 487 (55.0%) received octreotide LAR, 228 (25.8%) received octreotide SA, 139 (15.7%) received cytotoxic chemotherapy, and the remainder received a combination of the above agents or other drugs. The **Figure** demonstrates detailed treatment patterns with observational periods lasting from <1 year up to 10 years. First-line octreotide LAR may be used continuously for up to 7 years; in certain patients who used first-line octreotide SA, subsequent use of octreotide LAR lasted as long as 9 years.

Conclusion: A substantial proportion of CS patients who received octreotide LAR as first-line pharmacologic therapy or after initial, short-duration treatment with octreotide SA remained on octreotide LAR for multiple years. Additional research should review treatment duration in real-world clinic settings alongside clinical and healthcare utilization outcomes.

Figure: Treatment Patterns among Patients Newly Treated with Any Pharmacologic Agent (N=885).



Day 1: first date of treatment

SSA: somatostatin analog (octeotide or lanreotide); Other Rx: everolimus, sunitinib, or interferon

Other Txt: liver resection/cytoreduction, liver transformation, or embolization/chemoembolization/radiofrequency ablation