

## P-3

# The Cost-Effectiveness of Initial vs. Delayed Lanreotide for Treatment of Metastatic Enteropancreatic Neuroendocrine Tumors in the United States

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**BACKGROUND:** The Controlled Study of Lanreotide Antiproliferative Response in Neuroendocrine Tumors (CLARINET) demonstrated prolonged progression-free survival for patients initially treated with lanreotide compared with patients receiving placebo. The CLARINET extension study followed patients who crossed over from placebo to lanreotide following progression. The objective of this study is to evaluate the cost-effectiveness of lanreotide upfront vs. active surveillance with lanreotide given upon progression for patients with metastatic enteropancreatic neuroendocrine tumor.

**METHODS:** We developed a Markov model to evaluate the cost-effectiveness of upfront lanreotide vs. active surveillance with lanreotide given upon progression for patients with metastatic enteropancreatic neuroendocrine tumor. The model was calibrated to match the survival curves for both arms of the CLARINET trial. We based the active surveillance strategy on the CLARINET placebo arm and the survival curves for patients who crossed over to lanreotide in the extension study. We modeled the monthly cost of lanreotide at \$6718/month (Medicare payment amount for 120 mg). We used published utilities (0.77 for stable disease and 0.61 for progressed disease) and adopted a U.S. Medicare healthcare perspective and a lifetime time horizon.

**RESULTS:** Lanreotide given initially prolonged progression-free survival by 31.7 months, produced an additional 0.34 QALYs at a cost of \$157,000 (\$462,000 per quality-adjusted life-year gained) compared to active surveillance with lanreotide upon progression. To reach a willingness-to-pay threshold (WTP) of \$100,000 per QALY, cost of lanreotide would have to be reduced by 74%. Our results were not sensitive to variations in utilities, costs of downstream treatments, and adverse event rates.

**CONCLUSION:** At its current prices, lanreotide is not cost-effective as initial therapy for select patients with metastatic enteropancreatic neuroendocrine tumor vs. active surveillance with lanreotide taken upon progression. We find that the cost of lanreotide would need to be lowered by 74% to be considered cost-effective for a WTP threshold of \$100,000 per QALY.