BACKGROUND

- Two long-acting somatostatin analogs (SSAs): lanreotide autogel (LAN) and octreotide long-acting release (OCT), are approved for neuroendocrine tumors (NETs) and acromegaly.1 2
- In the absence of clinical trials directly comparing different SSAs, the use of real-world evidence provides valuable insight into factors that may drive treatment selection.

OBJECTIVES

- This study aimed to evaluate the burden of lanreotide and octreotide treatment on patients by examining claims data on injection frequency, rescue medication use and associated costs in Canada.

METHODS

- Private and public claims data were compiled from three Canadian databases: IQVIA Private Drug Plan (PDP), Ontario Drug Benefit (ODB) program and Régie de l’assurance-maladie du Québec (RAMQ).
- Patients eligible for inclusion had their first long-acting SSA prescription dispensed between September 2015 and June 2018 (prescription date = index date), and had not received treatment with SSAs in the six months prior to the index date.
- The initial LAN or OCT dosage a patient claimed for was used to infer their diagnosis as acromegaly or NETs according to the recommended and most common dosages used within these indications (further details of indications, such as vasoactive intestinal peptide tumors [VIPomas], could not be obtained for this analysis).
- Patient data were collected and analyzed at monthly (30-day) intervals from the index date up to SSA treatment interruption (no SSA purchase for more than 60 days) until the end of the analysis period (variable length).
- Injection burden (average number of syringe claims for LAN 120 mg and OCT 30 mg), short-acting octreotide rescue use, and associated cost data were assessed in patients who initiated treatment with either LAN 120 mg or OCT 30 mg and had not received treatment with SSAs in the 6 months prior to the index date.
- Unpaired t-tests or Wilcoxon tests were used to determine whether the data collected for LAN and OCT were statistically different (p<0.05).

RESULTS

Study characteristics

- A total of 908 patients were included in the analysis.
- SSA injection burden
- LAN treatment was associated with a lower weighted average injection burden over 12 months when compared with OCT, 12.54 vs 13.44 injections per patient, respectively (p=0.001).
- This difference in injection burden was most evident in the last four months analyzed (Figure 1A).

Rescue medication use

- Overall, patients receiving LAN had a lower mean use of rescue medications than those treated with OCT (Figure 1B).
- The difference in rescue medication use was most evident during the first month of treatment (Figure 1B).

SSA treatment-associated costs

- Mean total annual costs associated with SSA treatment (rescue medication + long-acting release) were lower for LAN than OCT (Table 1).
- Across the 12 months analyzed, LAN-associated costs were consistently lower than OCT-associated costs (Figure 2).

CONCLUSIONS

- Our results suggest that patients receiving LAN had lower use of rescue medication, and overall lower monthly treatment costs.
- Fewer patients in study were receiving LAN as compared with OCT, and the databases did not allow patient characteristics to be compared. Therefore, further work would help confirm these results.
- These findings may be useful in clinical settings to inform treatment discussions with patients.

References


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Figure 1. A) Mean monthly injection burden over 12 months of SSA treatment
B) Mean monthly rescue medication use over 12 months of SSA treatment

Table 1. Weighted average of SSA treatment-associated costs over 12 months

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Cost (CAD)</th>
</tr>
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<tbody>
<tr>
<td>LAN 120 mg</td>
<td>27,785.71</td>
</tr>
<tr>
<td>OCT 30 mg</td>
<td>27,829.35</td>
</tr>
</tbody>
</table>

Costs are shown in Canadian Dollars. CI: confidence interval; LAN: lanreotide autogel; OCT: octreotide long-acting release; SSA: somatostatin analog.

Figure 2. Mean monthly SSA treatment-associated costs

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Costs per patient (CAD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN 120 mg</td>
<td>2,365.49</td>
</tr>
<tr>
<td>OCT 30 mg</td>
<td>2,538.09</td>
</tr>
</tbody>
</table>

Costs are shown in Canadian Dollars. Patients initiating treatment with LAN 120 mg or OCT 30 mg were assumed to be patients with NETs. LAN associated costs were OCT associated costs. CI: confidence interval; LAN: lanreotide autogel; OCT: octreotide long-acting release; SSA: somatostatin analog.

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Conflicts of interest: WYC: Consulting or advisory role at Ipsen and Novartis; MF: Employee of Ipsen at the time of analysis; CL: Employee of IQVIA; AL: Employee of Ipsen; HM: Employee of Ipsen; JML: Consulting or advisory role at Takeda Pharmaceutical, Ipsen, Novartis, Bayer and Amgen.

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