

## Ozempic 1 mg Subcutaneous Injection for Treatment of Diabetes

Product	DIN	Manufacturer
Ozempic (semaglutide) pre-filled pen delivering doses of 1 mg	02471469	Novo Nordisk Canada Inc.

### Background<sup>1</sup>

The Ozempic 1 mg dose pen is currently in short supply due to overall global supply constraints and increased demand. This shortage is anticipated to continue through early October 2023 when a more stable product supply is expected.

Patients are encouraged to limit refill prescriptions to a 30-day supply and contact their pharmacy or health-care provider ahead of running out of their current supply.

### Health Canada-approved indications of Ozempic<sup>2</sup>:

- Once-weekly treatment of adult patients with type 2 diabetes mellitus (T2DM) to improve glycemic control as adjunct to diet and exercise.

### Management Options

- The information presented here is generalized, and patients should be evaluated on an individual basis with close clinical monitoring. T2DM is a complex medical condition that requires attention to factors other than pharmacotherapy, which are not addressed here.

### Pharmaceutical Alternatives

- Semaglutide is also available as a 0.25 mg and 0.5 mg dose pen (Ozempic) and as an oral tablet (Rybelsus). These options are currently available across Canada; however, supply constraints may also occur with these products due to delays in delivery and/or increased demand. These may not be feasible options due to quantity limits imposed by third-party insurers.

#### *Switching from Ozempic 1 mg dose pen to Ozempic 0.25 mg and 0.5 mg dose pen*

- Use the same total weekly dose. Inject two 0.5 mg doses at the same time at different sites to achieve 1 mg dose. Rotate injection sites.

#### *Switching from subcutaneous semaglutide to oral semaglutide*

- Oral semaglutide is taken daily on an empty stomach upon waking, with only minimal water and no other food, drink or medications for at least 30 minutes.
- There is no equivalent oral dose provided in the manufacturer's labelling for the 1 mg once-weekly SC dose; some experts convert to 14 mg orally once daily, beginning within 7 days of the last injection.<sup>3</sup>

### Alternative Glucagon-Like Peptide-1 Receptor Agonists<sup>4</sup>

- GLP-1 RAs (short acting: lixisenatide; and long-acting: dulaglutide, liraglutide SC formulations) can decrease HbA<sub>1c</sub> by approximately 1-1.5%.
- Short-acting subcutaneous GLP-1 RAs work primarily on postprandial glucose, and administration must coincide with meals.
- Injectable long-acting GLP-1 RAs are administered either daily (liraglutide) or weekly (dulaglutide) without regard to meals.

Drug Class: Glucagon-Like Peptide-1 (GLP-1) Receptor Agonists				
Drug/Cost*	Dosage	Adverse Effects	Drug Interactions	Comments
<i>semaglutide</i> Ozempic ~\$230	Initial: 0.25 mg weekly SC for 4 wk Increase to 0.5 mg weekly SC from week 5 onward  May increase to 1 mg weekly SC after a further 4 wk	Nausea, vomiting, diarrhea, injection site reactions, acute pancreatitis (rare).	May reduce rate of absorption of some oral medications.	Causes weight loss. Caution in patients with heart rhythm disturbances and severe renal impairment. Contraindicated in pregnancy and those with personal or family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2.
<i>semaglutide</i> Rybelsus ~\$230	Initial: 3 mg once daily PO Increase to 7 mg once daily PO after 30 days May increase to 14 mg daily PO after a further 30 days	Nausea, vomiting, diarrhea, acute pancreatitis (rare).	May reduce rate of absorption of some oral medications.	Causes weight loss. Caution in patients with heart rhythm disturbances and severe renal impairment. Contraindicated in pregnancy and those with personal or family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2.
<i>dulaglutide</i> Trulicity \$230	Initial: 0.75 mg weekly SC  Typically increased to 1.5 mg weekly SC thereafter	Nausea, vomiting, diarrhea, injection site reactions, acute pancreatitis (rare).	May reduce rate of absorption of some oral medications.	See <i>semaglutide</i> .
<i>liraglutide</i> Victoza \$220	Initial: 0.6 mg once daily SC Increase to 1.2-1.8 mg once daily SC	Nausea, vomiting, diarrhea, injection site reactions, acute pancreatitis (rare).	May reduce rate of absorption of some oral medications.	See <i>semaglutide</i> .
<i>lixisenatide</i> Adlyxine \$100-125	Initial: 0.01 mg once daily SC for 14 days Increase to 0.02 mg once daily SC on Day 15	Nausea, vomiting, diarrhea, injection site reactions, acute pancreatitis (rare).	May reduce rate of absorption of some oral medications.	See <i>semaglutide</i> .

\*Cost of 30-day supply unless otherwise specified; includes drug cost only.

#### Switching from SC once-weekly semaglutide to other GLP-1 RAs<sup>5</sup>

- There are no direct conversions or dose equivalents between different GLP-1 RAs.
- Administer first dose of new GLP-1 RA 7 days after last dose of Ozempic.
- It may be prudent to start with a lower dose and titrate up as tolerated according to product instructions (if applicable).
- Monitor for:
  - o adverse effects such as nausea, vomiting, diarrhea and injection site reactions
  - o variation in glycemic control

## Coverage

- Of the GLP-1 RAs, SC semaglutide (Ozempic) and lixisenatide (Adlyxine) are covered through some provincial drug programs. Consult your local drug benefits list.

## References:

1. Krummen S. (Novo Nordisk Canada Inc.) Email to: Healthcare Professional. August 17, 2023. Press release available from: [www.novonordisk.ca/content/dam/nncorp/ca/en/press-releases/ozempic-supply-update-august-18-2023.pdf](http://www.novonordisk.ca/content/dam/nncorp/ca/en/press-releases/ozempic-supply-update-august-18-2023.pdf). Accessed August 18, 2023.
2. Health Canada; Novo Nordisk Canada Inc. Ozempic [product monograph]. Available from: <https://health-products.canada.ca/dpd-bdpp/info?lang=eng&code=96058>. Accessed August 18, 2023.
3. Lexicomp Online. Semaglutide. Waltham MA: UpToDate, Inc. Available from: <https://online.lexi.com>. Accessed August 18, 2023.
4. Mansell K, Arnason T. Diabetes mellitus [online]. June 2, 2023. Available from: <https://cps.pharmacists.ca>. Subscription required. Accessed August 18, 2023.
5. Almandoz JP, Lingvay I, Morales J et al. Switching between glucagon-like peptide-1 receptor agonists: rationale and practical guidance. Clin Diabetes 2020;38(4):390-402.