Foslevodopa/foscarbidopa solution (brand name Vyalev®) offers a new way to manage Parkinson disease for people who have fluctuations in the motor symptoms and experience limitations in being able to perform daily activities even while taking oral medications.

How Does it Work?

A formula combination of foslevodopa/foscarbidopa solution is delivered via a subcutaneous (under the skin) delivery system. Foslevodopa is a form of levodopa which is converted into dopamine, while foscarbidopa is a variation of carbidopa which helps levodopa work longer.

This unique treatment option uses a non-surgical pump system to deliver medication solution under the skin continuously throughout the day. A small catheter is connected to the pump, which administers the foslevodopa/foscarbidopa solution directly into the body. The steady medication delivery can help avoid the ups and downs that can occur with oral medications, providing more stable symptom relief throughout the day and often reducing medication side effects. The system's dosage is customized by your doctor based on your specific needs, symptoms, and reaction to the medication.

Using the Device

Those utilizing the foslevodopa/foscarbidopa solution will start by gathering the necessary supplies, including the pump, syringe, infusion set, and medication. The medication solution is then loaded into the pump, the infusion set is primed to eliminate air bubbles, and the infusion site (on the abdomen) is prepared by cleaning it thoroughly. The cannula is then inserted (using the provided supplies) into the cleaned site, followed by the secure connecting of the tubing to the pump. The next step is to program the pump with the prescribed infusion rate, dose, and duration, and start the infusion as directed. Regularly monitor the pump for any alarms or issues and check the infusion site for signs of infection or irritation. Address any problems according to the manufacturer's instructions or consult your healthcare provider if needed.

The medication solution itself is drawn into the syringe that goes into the pump device. The medication solution comes in vials that are stored in the fridge (but do not freeze) for use over 28 days (about 4 weeks) or can also be stored at room temperature to the same max of 28 days. Once a vial has been stored at room temperature, do not return it to the refrigerator.

It is important to rotate the infusion site and use a new infusion set (tubing and cannula) every 3 days. The new infusion site should be moved at least 2.5 cm from a site used in the past 12 days.

Side Effects

A side effect is any unwanted reaction or symptom caused by a medication; most medications come with the potential for side effects. It is important to note anything out of the ordinary to your doctor. Side effects of this treatment option include (but are not limited to):

- **Skin irritation (redness, rash, itching, or swelling) at the application site.** This is the most commonly reported side effect and can happen because the medication solution is administered through the skin (subcutaneously).
- **Nausea, dizziness, drowsiness, and loss of appetite.** These side effects are generally mild but should be reported to your doctor if they persist or worsen.
- **Some patients may experience more severe reactions such as anxiety, delusions, hallucinations, blurred vision, mood changes, or impulse control issues (gambling, or sexual urges)**. If any of these serious side effects occur, it's important to contact your doctor immediately. Uncontrolled movements, fast heartbeats, and severe dizziness or fainting are also serious and require immediate medical attention.

This is not a full list of side effects, so if you notice anything else unusual, always speak with your doctor or pharmacist.

Access in Alberta

On June 1, 2024, foslevodopa/foscarbidopa solution (Vyalev®) was approved to be considered for coverage by Special Authorization under the Alberta Health Drug Benefit List. This means that not everyone automatically qualifies for coverage, and individuals need their doctor to submit an application demonstrating their need for the medication. The authorization is usually approved for 12 months initially, with the possibility of renewal based on continued need.

Though very new to the Parkinson's treatment landscape, clinical trials for foslevodopa/foscarbidopa solution (Vyalev®) have shown positive outcomes, particularly for patients with advanced Parkinson disease. Participants experienced a reduction in motor fluctuations and improvements in morning akinesia (difficulty moving after waking up).

Additionally, the studies reported better sleep quality and an overall enhancement in the quality of life compared to those using oral levodopa. This treatment option's ability to provide smoother, longer-lasting symptom control with fewer "off" periods makes it a promising alternative for people with Parkinson's who need consistent relief throughout the day.