

Rasagiline

Product:

RASAGILINE (Azilect®), 0.5mg, 1mg, tablet

Class of drugs:

Monoamine oxidase inhibitor, type B

Indication:

Treatment of Parkinson's disease

Manufacturer:

Teva Neuroscience

CED Recommendation

The CED recommended that rasagiline (Azilect) not be listed on the Ontario Drug Benefit (ODB) Formulary, on the basis that there is no evidence this medication is clinically superior to existing alternatives and it is significantly more expensive.

Executive Officer Decision

Based on the CED's recommendation, the Executive Officer decided not to list rasagiline (Azilect) on the ODB Formulary.

Status

No funding through the Ontario Public Drug Programs.

Highlights of Recommendation:

- ◆ Rasagiline (Azilect) is indicated for the treatment of Parkinson's disease, either as standalone therapy or in combination with levodopa.
- ◆ When compared against a placebo in clinical studies, rasagiline (Azilect) was shown to provide improvements on several measures, including motor control and involuntary movements.
- ◆ Improvements in quality of life were also reported in a clinical study that assessed patients with early Parkinson's disease who had never been on levodopa therapy; however, these benefits were not seen in studies that enrolled patients who were already receiving levodopa.
- ◆ When evaluated against entacapone (another treatment for Parkinson's disease), rasagiline (Azilect) was shown to provide comparable efficacy and side effects.
- ◆ There are no studies comparing rasagiline (Azilect) to selegiline, another treatment for Parkinson's disease. Selegiline and rasagiline (Azilect) belong to the same drug class; therefore, selegiline is the most relevant comparator. Without comparative clinical studies, it is unknown whether rasagiline (Azilect) offers any clinical advantage over selegiline.
- ◆ Side effects associated with rasagiline (Azilect) include weight loss, nausea, vomiting, anorexia, and low blood pressure upon standing.
- ◆ Rasagiline (Azilect) costs \$7 per day, while selegiline costs \$2 per day.
- ◆ **Overall, the Committee acknowledged that rasagiline (Azilect) was shown to provide some improvements in the treatment of Parkinson's disease. However, there is no evidence that this drug is clinically superior to selegiline and, therefore, its substantial price premium could not be justified.**

Background:

Parkinson's disease is a progressive, degenerative brain disorder characterized by problems with motor function, stiffness, tremor and impaired balance. Parkinson's disease occurs when dopamine-producing brain cells are depleted.

There is no cure, but treatment with levodopa (which changes to dopamine in the brain), as well as other medications, may slow or relieve symptoms for a time. As Parkinson's disease progresses, standard medications such as levodopa lose their effectiveness, and patients experience more side-effects from treatment, such as involuntary movements and hallucinations.

Rasagiline (Azilect) belongs to a drug class known as monoamine oxidase B (MAO-B) inhibitors. Rasagiline (Azilect) blocks the actions of monoamine oxidase, making more dopamine available to the brain.

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Detailed Discussion:

- ◆ The Committee considered five randomized controlled trials in its evaluation of rasagiline (Azilect). All five were placebo controlled studies. One of the studies included a treatment arm with entacapone.
- ◆ In patients with early Parkinson's disease who had never been treated with levodopa, rasagiline (Azilect), compared with placebo, was associated with statistically significant improvements in quality of life and in total score on the Unified Parkinson's Disease Rating Scale (UPDRS).
- ◆ In patients who were already receiving levodopa therapy, rasagiline (Azilect), compared with placebo, was associated with statistically significant improvements in motor fluctuations and incidence of dyskinesia (involuntary movements). Statistically significant differences in quality of life were not demonstrated.
- ◆ There were no statistically significant differences between rasagiline (Azilect) and entacapone in any of the reported outcomes, including serious adverse events.
- ◆ There are no head-to-head trials comparing rasagiline (Azilect) to selegiline. The Committee noted that selegiline, another MAO-B inhibitor, is the most relevant comparator. In the absence of direct comparative studies, it is unknown whether rasagiline (Azilect) offers any therapeutic advantage over selegiline.
- ◆ From a pharmacologic perspective, amphetamine-like side effects are theoretically absent with rasagiline (Azilect). However, both rasagiline (Azilect) and selegiline have other similar risks, including hypertensive crisis and serotonin syndrome.
- ◆ At usual doses, rasagiline (Azilect) costs \$7 per day. This is significantly more costly than selegiline at \$2 per day. The manufacturer provided a pharmacoeconomic analysis that compared rasagiline (Azilect) to entacapone in patients with advanced Parkinson's disease. Selegiline was not considered in the economic model.

- ◆ Overall, the Committee acknowledged that rasagiline (Azilect) was shown to provide some improvements in the treatment of Parkinson's disease. However, there is no evidence that this drug is therapeutically superior to selegiline and, therefore, its substantial price premium could not be justified.

CEDAC Recommendation:

(<http://www.cadth.ca/index.php/en/cdr/recommendations>)

The Canadian Expert Drug Advisory Committee (CEDAC) recommended that rasagiline (Azilect) not be listed.



Ministry of
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