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Bedfordshire and Luton Joint Prescribing Committee

Published December 2019
Review: December 2022

Rasagiline for Parkinson's Disease

Formulary Status: Amber :-

For Specialist initiation , GP continuation

JPC Recommendation:

- The committee approved the addition of Rasagiline for the treatment of Parkinson's Disease to the Bedfordshire and Luton Joint Formulary.
- For Specialist initiation only, GPs can then continue to prescribe in Primary Care.

Ref : JPC Bulletin 285

**Bedfordshire CCG
Luton CCG**

BEDFORDSHIRE AND LUTON JOINT PRESCRIBING COMMITTEE

**New Medicine Review
Rasagiline for Parkinson's Disease**

Medicine	Rasagiline 1mg tablets
Document status	<i>Final Approved December 2019</i>
Date of last revision	
Proposed Sector of prescribing	Primary and secondary care
Introduction Summary Key points Evidence level	<ul style="list-style-type: none"> • Rasagiline is licensed for the treatment of idiopathic Parkinson's disease (PD) as monotherapy (without levodopa) or as adjunct therapy (with levodopa) in patients with end of dose fluctuations. • Rasagiline is not on the Joint Formulary but feedback from clinicians is that it is in use locally and has been for some time • MAO-B inhibitors, selegiline and rasagiline, are included in the Patient Pathway for the Treatment of Motor Features of Parkinson's Disease, which is included in JPC Bulletin 262: Opicapone for Parkinson's Disease. • NICE guidance 71, 'Parkinson's disease in adults', which is an update from the previous guidance (NG 35, 2006), does not differentiate between the different MAO-B inhibitors selegiline and rasagiline. • Rasagiline is a cost effective treatment option compared to the current formulary option selegiline.
The intervention Mechanism of action	Monoamine oxidase type B (MAO-B) inhibitors are a group of drugs used to treat the motor symptoms of Parkinson's disease which are caused by a reduction in dopamine. They act via inhibiting the enzyme monoamine oxidase which is responsible for the breakdown of dopamine in the brain. The reduced levels of dopamine in the brain result in the motor symptoms of Parkinson's Disease.
Licensed indication	Rasagiline is licensed for the treatment of idiopathic Parkinson's disease (PD) as monotherapy (without levodopa) or as adjunct therapy (with levodopa) in patients with end of dose fluctuations.
Formulation/Available Products	1mg tablets
Usual dosage	1mg once daily

<p>Treatment alternatives/ place in therapy</p>	<p>Appendix 1 Management of the Motor Symptoms of Parkinson's disease</p> <p>EARLY DISEASE (Typically 0-5 years after diagnosis) (when symptomatic therapy required)</p> <p>Levodopa/ dopa decarboxylase inhibitor (LD): Dopamine agonist (DA): Monoamine Oxidase B (MAO-B) inhibitor:</p> <p>Sinemet®/Madopar® Ropinirole/Pramipexole/Rotigotine patch Selegiline/ Rasagiline</p> <p>There is no universal first-choice drug therapy for people with early PD. The specialist will take a number of factors into account including, age of onset, severity of motor symptoms, neuropsychiatric and cognitive impairments, preferred mode and frequency of administration, lifestyle characteristics, patient preference</p> <p>MOTOR FLUCTUATIONS (Typically 5-10 years after diagnosis) Patient often have combinations of any of the following:</p> <p>Inadequate symptomatic response Consider adjunct dopaminergic therapy (LD/DA/MAO-B)</p> <p>End (start) of dose motor fluctuations Diphasic dyskinesias Optimise timings of LD therapy Optimise LD/DA/MAO-B regime COMT inhibitor (Entacapone/Sastravi®) COMT inhibitor (Tolcapone/Opicapone) If Entacapone not tolerated or ineffective</p> <p>Unpredictable OFF/ dose failure Madopar® dispersible Consider COMT inhibitor Entacapone Tolcapone/ Opicapone if entacapone not tolerated or ineffective</p> <p>Disabling peak dose dyskinesias Optimise DA/LD/MAO-B Fractionate or lower LD</p> <p>Refractory tremor Optimise DA/LD/MAO-B</p> <p>Amantadine</p> <p>REFRACTORY MOTOR COMPLICATIONS (typically 10 years+)</p> <ul style="list-style-type: none"> excessive daily OFF troublesome dyskinesias refractory tremor all other non-invasive/oral medication <p>Combinations unsuccessful</p> <p>Intermittent apomorphine injections Continuous apomorphine infusion</p> <p>Deep brain stimulation (STN, Gpi, VIM)</p> <p>Levodopa – carbidopa intestinal gel</p> <p>* Opicapone would be used in patients with motor fluctuations and significant OFF time, in whom existing oral strategies have failed in order to delay or prevent progression to invasive surgical or infusion therapies, as indicated on the pathway</p>
<p>Future alternatives</p>	
<p>National guidance</p>	<ul style="list-style-type: none"> NICE guideline (NG) 71 (Published: 19 July 2017) notes that: <ul style="list-style-type: none"> when starting treatment, consideration needs to be given to the person's individual clinical circumstances such as comorbidities and risks from polypharmacy, the person's individual lifestyle circumstances, references, needs and goals and the potential benefits and harms of the different drug classes. For first line treatment, 'Offer levodopa to people in the early stages of Parkinson's disease whose motor symptoms impact on their quality of life. Consider a choice of dopamine agonists, levodopa or MAO-B inhibitors for people in the early stages of Parkinson's disease whose motor symptoms do not impact on their quality of life'. For adjuvant treatment of motor symptoms 'to offer a choice of dopamine agonists, MAO-B inhibitors or catechol-O-methyl transferase inhibitors as an adjunct to levodopa for people with Parkinson's disease who have developed dyskinesia or motor fluctuations despite optimal levodopa therapy'.
<p>Local Guidance</p>	<p>MAO-B inhibitors are included as option in early disease as monotherapy or as an adjunctive in more advanced disease where they have developed dyskinesia or motor fluctuations despite optimal levodopa therapy which is in line with NICE Guidance for Parkinson's Disease [NG71].</p>
<p>Evidence for use</p>	<p>No new clinical trial evidence considered. NICE has updated the clinical guideline for Parkinson's disease in adults in July 2017. No differentiation is made between different MAO-B inhibitors as treatment choices. The formulary application is</p>

	being made to ensure the Joint Formulary reflects our current treatment pathway and acknowledges rasagiline has been in use locally for some time.																									
Safety*	In clinical studies in Parkinson's disease patients the most commonly reported adverse reactions were: headache, depression, vertigo, and flu (influenza and rhinitis) in monotherapy; dyskinesia, orthostatic hypotension, fall, abdominal pain, nausea and vomiting, and dry mouth in adjunct to levodopa therapy; musculoskeletal pain, as back and neck pain, and arthralgia in both regimens. These adverse reactions were not associated with an elevated rate of drug discontinuation.																									
Costs Tariff status Activity costs Formulary status	<p>N.B. Doses are for general comparison and do not imply therapeutic equivalence</p> <table border="1"> <thead> <tr> <th>Drug</th> <th>Dose</th> <th>Pack size/cost*</th> <th>28-day cost*</th> <th>Approx. annual cost to primary care**</th> </tr> </thead> <tbody> <tr> <td>Rasagiline 1mg tablets (non-formulary)</td> <td>1mg OD</td> <td>28 tablets £2.28</td> <td>£2.28</td> <td>£29.64</td> </tr> <tr> <td>Selegiline 5mg tablets (formulary)</td> <td>5mg BD (breakfast and lunch) or 10mg OD</td> <td>100 tablets £16.52</td> <td>£9.25</td> <td>£120.27</td> </tr> <tr> <td>Selegiline 10mg tablets (formulary)</td> <td>10mg OD</td> <td>100 tablets £32.23</td> <td>£9.02</td> <td>£117.32</td> </tr> <tr> <td>Zelapar (selegiline) 1.25 mg Oral Lyophilisate (not considered by JPC for consideration at LDH DTC October 2019)</td> <td>1.25mg OD</td> <td>30 units £43.16</td> <td>£40.28</td> <td>£523.67</td> </tr> </tbody> </table> <p>*Prices taken from Drug Tariff October 2019 ** 28day cost multiplied by 13</p>	Drug	Dose	Pack size/cost*	28-day cost*	Approx. annual cost to primary care**	Rasagiline 1mg tablets (non-formulary)	1mg OD	28 tablets £2.28	£2.28	£29.64	Selegiline 5mg tablets (formulary)	5mg BD (breakfast and lunch) or 10mg OD	100 tablets £16.52	£9.25	£120.27	Selegiline 10mg tablets (formulary)	10mg OD	100 tablets £32.23	£9.02	£117.32	Zelapar (selegiline) 1.25 mg Oral Lyophilisate (not considered by JPC for consideration at LDH DTC October 2019)	1.25mg OD	30 units £43.16	£40.28	£523.67
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Cost effectiveness (if available)	Rasagiline is less costly than selegiline with a calculated drug cost reduction per patient approximately £85/pa																									
Potential number of patients in Bedfordshire and Luton	PD is a common, progressive neurodegenerative condition, estimated to affect up to 160 people per 100,000 of the UK population, with an annual incidence of 15–20 per 100,000.																									

<p>Impact per 100,000 population</p> <p>Affordability considerations</p>	<p>Impact data indicate that 198 patients were treated with rasagiline and selegiline over the last 12 months across Bedfordshire and Luton. Bedfordshire (population 440,000) – 151 patients of which 128 were prescribed rasagiline 1mg tablets Luton (population 210,000) – 47 patients of which 35 received rasagiline 1mg tablets.</p> <p>The prevalence of PD is likely to increase substantially in the near future due to an ageing population, however MAO-B inhibitors make up a low percentage of the annual drug spend and as shown in the prescribing data rasagiline is already more commonly used than selegiline and is the most cost effective MAO-B inhibitor.</p>
<p>Decisions from other bodies</p> <p>Comments sought from –</p>	<p>HMMC – approved – this proposal was prepared with information kindly provided by HMMC.</p>
<p>Evidence strengths and limitations</p>	

PAC New Drug Template – Adapted from East Anglia Medicines Information, NHS Suffolk, NHS Cambridgeshire and NHS Derby templates

**Consult Summary of Prescribing Characteristics for full prescribing detail.*

This guidance is based upon the published information available in English at the time the drug was considered. It remains open to review in the event of significant new evidence emerging.

References

NICE Guideline Parkinson's Disease in Adults [NG71] (July 2017)

<https://www.nice.org.uk/guidance/ng71/chapter/Recommendations#pharmacological-management-of-motor-symptoms>

JPC Bulletin 262: Opicapone for Parkinson's Disease (December 2017)

http://www.gpref.bedfordshire.nhs.uk/media/201529/opicaponebulletinpathwayupdated_12_4_2018.pdf

SPC for rasagiline accessed via: <https://www.medicines.org.uk/emc/> on 31st October 2019

Rasagiline in Parkinson's disease - HMMC (October 2019)



Attach 6.7a

Rasagiline in Parkin:

Bedfordshire and Luton Joint Prescribing Committee (JPC)
Assessment against Ethical and Commissioning Principles

Treatment assessed (December 2019): Rasagiline for Parkinson's Disease
JPC Recommendation <ul style="list-style-type: none">• The committee approved the addition of Rasagiline for the treatment of Parkinson's Disease to the Bedfordshire and Luton Joint Formulary.• For Specialist initiation only, GPs can then continue to prescribe in Primary Care.
1) Clinical Effectiveness
2) Cost Effectiveness
3) Equity & Equality Impact Assessment*
4) Needs of the community
5) Need for healthcare (incorporates patient choice and exceptional need)
6) Policy drivers
7) Disinvestment

The JPC agreed the following sections within the PCT Ethical and Commissioning Framework were not relevant to JPC discussions: Health Outcomes, Access, and Affordability.

***Equality Impact Assessment for BCCG only**

Where the implementation of the decision of the Bedfordshire and Luton Joint Prescribing Committee (JPC) may impact on one or more equality group differently to others, BCCG will require an equality impact assessment to be completed. The guidance on this can be found in the attached document. Please summarise the equality impact in the in the Equity & Equality Impact Assessment box above.



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Protected Characteristics (under the Equality Act):-

Age; Disability; Gender reassignment; Marriage & Civil Partnership (in employment only);
Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual orientation; carer

