

**South East London Integrated Medicines Optimisation Committee  
(SEL IMOC, formerly the SEL Area Prescribing Committee)  
Formulary recommendation**

<b>Reference</b>	<b>123</b>
<b>Intervention:</b>	<b>Memantine for migraine prophylaxis in adults (off-label use)</b> (Memantine is an N-methyl-D-aspartate (NMDA)-receptor antagonist that inhibits or reduces the impact of glutamate. It has been postulated that elevated glutamate levels could be linked to migraines)
<b>Date of Decision</b>	<b>December 2020</b>
<b>Date of Issue:</b>	<b>January 2021</b>
<b>Recommendation:</b>	<b>RED – Prescribing and supply by hospital only</b>
<b>Further Information</b>	<ul style="list-style-type: none"> <li>• Memantine is accepted for use in SEL for the prophylaxis of migraine in adults.</li> <li>• The use of memantine is restricted as a <b>last line</b> option after all other treatments have been trialled or considered but are not effective, not tolerated or contra-indicated. Patient factors (such as co-morbidities and other medicines the patient is taking) will also be considered by the initiating specialist.</li> <li>• The dose range for memantine in this setting is 5mg daily, titrated to a maximum dose of 20mg daily as tolerated by the patient.</li> <li>• Response to treatment will be reviewed by the specialist team and will include assessment of the number of headache days, the severity/intensity, frequency and duration of attacks (using headache diaries and quality of life scores), symptom control, use of acute treatments and tolerability.</li> <li>• Criteria for stopping memantine treatment include:             <ul style="list-style-type: none"> <li>- Intolerable symptoms after commencing memantine that are possibly linked to memantine (determined by the initiating headache specialist)</li> <li>- No improvement after reaching the maximum tolerable memantine dose for 2-3 months.</li> </ul> </li> <li>• Prescribing is restricted to neurology consultants specialising in the management of headache disorders.</li> <li>• Memantine is <b>not licensed</b> for migraine prophylaxis*. Informed consent should be gained from the patient before treatment is started.</li> <li>• A pathway for the management of headache disorders will be developed to outline the place in therapy of the various treatment options in migraine. Until the pathway is agreed, memantine will be categorised as red across SEL. This position will be reviewed as part of the pathway development.</li> <li>• Funding will need to be confirmed at individual Trust level as memantine will be prescribed and supplied by the hospital.</li> </ul> <p>*Memantine is licensed for the treatment of adult patients with moderate to severe Alzheimer's disease</p>
<b>Shared Care/ Transfer of care required:</b>	N/A

<b>Cost Impact for agreed patient group</b>	<ul style="list-style-type: none"> <li>• The formulary application estimates that an estimated 27 patients would be suitable for treatment across KCH and GSTT per year.</li> <li>• This equates to approximately £3,000 drug costs per annum at the higher memantine dose of 20mg daily.</li> <li>• However, a significant proportion of these patients are likely to be from outside SE London given that both Trusts are tertiary referral centres.</li> <li>• The cost impact for SEL is therefore likely to be negligible.</li> </ul>
<b>Usage Monitoring &amp; Impact Assessment</b>	<p><b>Acute Trusts:</b></p> <ul style="list-style-type: none"> <li>• Monitor use and report back to IMOC when required.</li> <li>• Audit use upon request to ensure use is in line with this recommendation.</li> </ul> <p><b>SEL CCG Borough Medicines Optimisation Teams:</b></p> <ul style="list-style-type: none"> <li>• Monitor exception reports from GPs if inappropriate prescribing requests are made to primary care.</li> </ul>
<b>Evidence reviewed</b>	<p><b>References (from evidence evaluation)</b></p> <ol style="list-style-type: none"> <li>1. International Classification of Headache Disorders – 3rd Edition. Available online at: <a href="https://www.ichd-3.org/classification-outline">https://www.ichd-3.org/classification-outline</a> (accessed 05/11/2020).</li> <li>2. Headaches in over 12s: diagnosis and management. National Institute for Health and Care Excellence CG150. Available online at: <a href="https://www.nice.org.uk/guidance/cg150">https://www.nice.org.uk/guidance/cg150</a> (accessed 05/11/2020).</li> <li>3. Botulinum toxin type A for the prevention of headaches in adults with chronic migraine. National Institute for Health and Care Excellence TA260 (2012). Available online at: <a href="https://www.nice.org.uk/guidance/ta260">https://www.nice.org.uk/guidance/ta260</a> (accessed 05/11/2020).</li> <li>4. Fremanezumab for preventing migraine. National Institute for Health and Care Excellence TA631 (2020). <a href="https://www.nice.org.uk/guidance/ta631">https://www.nice.org.uk/guidance/ta631</a> (accessed 05/11/2020).</li> <li>5. Scottish Intercollegiate Guidelines Network 155 - Pharmacological management of migraine (2018). Available online at: <a href="https://www.sign.ac.uk/our-guidelines/pharmacologicalmanagement-of-migraine/">https://www.sign.ac.uk/our-guidelines/pharmacologicalmanagement-of-migraine/</a> (accessed 05/11/2020).</li> <li>6. Viera D, Naffah-Mazzacoratti G, Zukerman E et al. Glutamate levels in cerebrospinal fluid and triptans overuse in chronic migraine. Headache 2007 47 p842-847.</li> <li>7. Ebixa (memantine). Summary of Product Characteristics. Available online at: <a href="https://www.medicines.org.uk/emc/product/8222/smpc">https://www.medicines.org.uk/emc/product/8222/smpc</a> (accessed 06/11/2020).</li> <li>8. Shanmugam S, Karunaikadai K, Varadarajan S et al. Memantine ameliorates migraine headache. Annals of Indian Academy of Neurology 2019 22 (3) p286-290.</li> <li>9. Noruzzadeh R, Modabbernia A, Aghamollai V et al. Memantine for prophylactic treatment of migraine without aura: a randomised double-blind placebo-controlled study. Headache 2015 56 p95-103.</li> <li>10. Assarzadegan F, Sistanizad M. Tolerability and efficacy of memantine as add on therapy in patients with migraine. Iranian Journal of Pharmaceutical Research 2017 16 (2) p791-797.</li> <li>11. Bigal M, Rapoport A, Sheftell F et al. Memantine in the preventive treatment of refractory migraine. Headache 2008 48 p1337-1342.</li> <li>12. Charles A, Flippen C, Reyes M et al. Memantine for prevention of migraine: a retrospective study of 60 cases. J Headache Pain 2007 8 p248-250.</li> </ol>

**NOTES:**

- a) SEL IMOC recommendations and minutes are available publicly via the [website](#).
- b) This SEL IMOC recommendation has been made on the cost effectiveness, patient outcome and safety data available at the time. The recommendation will be subject to review if new data becomes available, costs are higher than expected or new NICE guidelines or technology appraisals are issued.
- c) **Not to be used for commercial or marketing purposes. Strictly for use within the NHS**