

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Eptinezumab for preventing migraine [ID3803]

Final scope

Final remit/appraisal objective

To appraise the clinical and cost effectiveness of eptinezumab within its marketing authorisation for preventing migraine.

Background

Migraine is primarily a headache disorder manifesting as recurring attacks usually lasting between 4 and 72 hours involving throbbing head pain of moderate to severe intensity. It is often accompanied by nausea, sometimes vomiting, sensitivity to light, sensitivity to sounds, and/or other sensory stimuli. Migraine can have significant impacts on quality of life and ability to carry out normal activities. Some people can have warning symptoms called an aura, before the start of a headache. Factors that can trigger attacks in people susceptible to migraines include stress, change in sleep pattern, overtiredness, menstruation, consumption of caffeine or alcohol, climatic conditions and use of visual display units.

Migraine is on a continuum, and it is possible for people to move between episodic and chronic migraine:

- Episodic migraine is defined as the occurrence of headaches on less than 15 days per month
- Chronic migraine is defined by the International Classification of Headache Disorders 3rd edition (ICHD-3)¹. It is described as headache occurring on 15 or more days a month for more than 3 months, which, on at least 8 days a month, has the features of migraine headache.

It is estimated that there are 190,000 migraine attacks experienced every day in England². Prevalence has been reported to be 5-25% in women and 2-10% in men².

There are 3 broad approaches to managing migraine: lifestyle and trigger management, acute treatments and preventive treatments. Preventive treatment of migraines can take many forms including nutritional supplements, lifestyle alterations such as increased exercise and avoidance of migraine triggers. It can also include medications, which are generally considered for people depending on their disease burden and frequency of attacks. [NICE clinical guideline 150](#) recommends offering topiramate or propranolol, and considering amitriptyline, for preventing migraine according to the person's preference, comorbidities and risk of adverse events.

NICE technology appraisal (TA) guidance recommends the following treatments for preventing migraine in adults:

- [TA764](#) recommends fremanezumab for preventing migraine in adults who experience 4 or more migraine days per month and at least 3 preventative drug treatments have failed.

- [TA682](#) recommends erenumab for preventing migraine in adults who experience 4 or more migraine days per month and at least 3 preventive drug treatments have failed.
- [TA659](#) recommends galcanezumab for preventing migraine in adults who experience 4 or more migraine days per month and at least 3 preventive drug treatments have failed.
- [TA260](#) recommends botulinum toxin type A for preventing headaches in adults with chronic migraine that has not responded to at least 3 prior pharmacological prophylaxis therapies and whose condition is appropriately managed for medication overuse.

The technology

Eptinezumab (Vypti, Lundbeck) is a humanised monoclonal antibody. It inhibits the action of calcitonin gene-related peptide (CGRP) which is believed to transmit signals that can cause severe pain. Eptinezumab is administered every 12 weeks by intravenous infusion.

Eptinezumab has a marketing authorisation for the prophylaxis of migraine in adults who have at least 4 migraine days per month. It has been studied in clinical trials, either on its own or compared with placebo, in adults with at least a 1-year history of chronic or episodic migraine.

Intervention(s)	Eptinezumab
Population(s)	Adults with migraine who have at least 4 migraine days per month
Comparators	<ul style="list-style-type: none"> • Oral preventive treatments (such as topiramate, propranolol, amitriptyline) • Erenumab (4 or more migraine days per month and after at least 3 preventive drug treatments have failed) • Galcanezumab (4 or more migraine days per month and after at least 3 preventive drug treatments have failed) • Fremanezumab (4 or more migraine days per month and after at least 3 preventive drug treatments have failed) • Botulinum toxin type A (in chronic migraine that has not responded to at least 3 prior pharmacological prophylaxis therapies) • Best supportive care

Outcomes	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> • frequency of headache days per month • frequency of migraine days per month • severity of headaches and migraines • number of cumulative hours of headache or migraine on headache or migraine days • reduction in acute pharmacological medication • adverse effects of treatment • health-related quality of life
Economic analysis	<p>The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year.</p> <p>If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost comparison may be carried out.</p> <p>The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared.</p> <p>Costs will be considered from an NHS and Personal Social Services perspective.</p> <p>The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account.</p>
Other considerations	<p>If the evidence allows, the following subgroups will be considered:</p> <ul style="list-style-type: none"> • people with chronic or episodic migraine • subgroups defined by the number of previous preventive treatments • subgroups defined by the frequency of episodic migraine <p>Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.</p>
Related NICE recommendations and NICE Pathways	<p>Related Technology Appraisals:</p> <p>Fremanezumab for preventing migraine (2022). NICE technology appraisal guidance 764. Review date 2025.</p>

	<p>Erenumab for preventing migraine (2021). NICE technology appraisal guidance 682. Review date 2024.</p> <p>Galcanezumab for preventing migraine (2020). NICE technology appraisal guidance 659. Review date 2023.</p> <p>Botulinum toxin type A for the prevention of headaches in adults with chronic migraine (2012). NICE technology appraisal guidance 260. Guidance on static list.</p> <p>Appraisals in development (including suspended appraisals):</p> <p>Rimegepant for treating or preventing migraine NICE technology appraisal guidance [ID1539]. Publication expected March 2023.</p> <p>Related Guidelines:</p> <p>Headaches in over 12s: diagnosis and management (2012). Updated 2021. NICE clinical guideline 150.</p> <p>Related Interventional Procedures:</p> <p>Transcutaneous electrical stimulation of the supraorbital nerve for treating and preventing migraine (2016). NICE interventional procedures guidance 559.</p> <p>Transcutaneous stimulation of the cervical branch of the vagus nerve for cluster headache and migraine (2016). NICE interventional procedures guidance 552.</p> <p>Transcranial magnetic stimulation for treating and preventing migraine (2014). NICE interventional procedures guidance 477.</p> <p>Occipital nerve stimulation for intractable chronic migraine (2013). NICE interventional procedures guidance 452.</p> <p>Percutaneous closure of patent foramen ovale for recurrent migraine (2010). NICE interventional procedures guidance 370.</p> <p>Related Quality Standards:</p> <p>Headaches in over 12s (2013). NICE quality standard 42</p>
<p>Related National Policy</p>	<p>The NHS Long Term Plan, 2019. NHS Long Term Plan</p> <p>NHS England (2019) Headache and migraine toolkit</p> <p>NHS England (2018) NHS England Funding and Resource 2018/19: Supporting 'Next Steps for the NHS Five Year Forward View'</p> <p>Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domain 2.</p> <p>NHS England (2015) Occipital Nerve Stimulation for Adults with Intractable Chronic Migraines and Medically Refractory Chronic Cluster Headaches Clinical Commissioning Policy Reference D08/P/c</p>

References

1. The International Headache Society. [International Classification of Headache Disorders 3rd edition \(ICHD-3\)](#). Accessed June 2022.
2. Steiner TJ et al. The prevalence and disability burden of adult migraine in England and their relationships to age, gender and ethnicity. *Cephalalgia*. 2003;23(7):519-527.