Briefing Paper for Surrey Heartlands Integrated Care System (ICS) Area Prescribing Committee (APC)

Integrated Care Partnerships (ICPs) (Surrey Downs, Guildford & Waverley, North West Surrey, East Surrey (as part of the CRESH system) & associated partner organisations.

NICE Technology Appraisals: Local implementation

NICE TA Guidance	Erenumab for preventing migraine		
Available at	https://www.nice.org.uk/guidance/TA682		
Date of issue	10 March 2021	**Implementation deadline**	10 June 2021

Medicine details[1,2]	
Name, brand name and manufacturer	Erenumab (Aimovig®) Novartis
Mode of action	Erenumab is a fully human IgG2 monoclonal antibody produced using recombinant DNA technology in Chinese hamster ovary (CHO) cells. It is one of three currently available anti-calcitonin gene-related peptides (CGRPs) monoclonal antibody treatments for use in preventing migraine: the others are fremanezumab (chronic migraine only) and galcanezumab (chronic and episodic migraine).
Licensed indication	Aimovig® is indicated for prophylaxis of migraine in adults who have at least 4 migraine days per month.
Formulation	70mg and 140mg solution for injection available as pre-filled pens or pre-filled syringes. Aimovig® is for subcutaneous use. Aimovig® is intended for patient self-administration after proper training. The injections can also be given by another individual who has been appropriately instructed. The injection can be administered into the abdomen, thigh or into the outer area of the upper arm (the arm should be used only if the injection is being given by a person other than the patient. Injection sites should be rotated and injections should not be given into areas where the skin is tender, bruised, red or hard.
Usual dosage	Treatment should be initiated by physicians experienced in the diagnosis and treatment of migraine. Posology: Treatment is intended for patients with at least 4 migraine days per month when initiating treatment with erenumab. The recommended dose is 70 mg erenumab every 4 weeks. Some patients may benefit from a dose of 140 mg every 4 weeks. Each 140 mg dose is given either as one subcutaneous injection of 140 mg or as two subcutaneous injections of 70 mg.

	Clinical studies have demonstrated that the majority of patients responding to therapy showed clinical benefit within 3 months. Consideration should be given to discontinuing treatment in patients who have shown no response after 3 months of treatment. Evaluation of the need to continue treatment is recommended regularly thereafter.
Comparison with NICE TA use[2]	The NICE TA only allows the use of the 140mg strength. *This is the current dose considered by NICE as part of the NICE evaluation. Subsequent changes in the license following NICE publication will need to be considered by the Area Prescribing Committee and **will not be routinely funded** by local commissioners.*

Disease and potential patient group	
Brief description of disease	Migraine is a headache disorder with recurring attacks usually lasting between 4 and 72 hours. The patient expert explained the debilitating effect of migraine on their daily life with symptoms including fatigue, severe head pain, sensitivity to light, difficulty concentrating, nausea, stiff neck or back, feeling down, and sensitivity to sound. These symptoms were noted to adversely affect someone's ability to do their usual activities, including work, and to negatively affect their family. Chronic migraine is defined as 15 or more headache days a month with at least 8 of those having features of migraine. Episodic migraine is defined as less than 15 headache days a month. The clinical and patient experts explained that the severity and frequency can fluctuate over time and that recovery from a migraine can take a few days. The committee concluded that migraine, particularly chronic migraine, is a debilitating condition that substantially affects both physical and psychological aspects of health-related quality of life.
Potential patient numbers per 100,000[3]	See Appendix 1:Total number of people eligible for treatment with erenumab, galcanezumab or fremanezumab. The resource planner for this TA does not show numbers of patients for each of the anti-CGRP treatment options.

SUMMARY

Guidance[2]

1.1 Erenumab is recommended as an option for preventing migraine in adults, only if:

- they have 4 or more migraine days a month
- at least 3 preventive drug treatments have failed
- the 140 mg dose of erenumab is used and
- the company provides it according to the commercial arrangement.

1.2 Stop erenumab after 12 weeks of treatment if:

- in episodic migraine (less than 15 headache days a month) the frequency does not reduce by at least 50%
- in chronic migraine (15 headache days a month or more with at least 8 of those

having features of migraine) the frequency does not reduce by at least 30%.

1.3 These recommendations are not intended to affect treatment with erenumab that was started in the NHS before this guidance was published. People having treatment outside these recommendations may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

Why the committee made these recommendations

Treatments for preventing chronic or episodic migraine include beta-blockers, antidepressants and antiepileptic drugs. If chronic migraine does not respond to at least 3 preventive drug treatments, botulinum toxin type A or best supportive care (treatment for the migraine symptoms) is offered. If episodic migraine does not respond to at least 3 preventive drug treatments, best supportive care is offered.

For people whose migraine has not responded to at least 3 preventive treatments, the clinical trial evidence shows that erenumab 140 mg works better than best supportive care for preventing chronic or episodic migraine. There is no direct evidence comparing erenumab with botulinum toxin type A in chronic migraine, but an indirect comparison suggests that erenumab has some benefit. It is plausible that erenumab may work better than botulinum toxin type A.

The cost-effectiveness estimates are within what NICE usually considers an acceptable use of NHS resources. So erenumab is recommended for preventing migraine in adults who have at least 4 migraine days per month.

Cost implications* [2,3]

Cost:
The list price of erenumab is £386.50 per 70 mg or 140 mg injection (excluding VAT, BNF online, accessed November 2020).

The company has a commercial arrangement. This makes erenumab available to the NHS with a discount. The size of the discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

Annual or monthly cost per patient:
The recommended dose is 140 mg erenumab every 4 weeks.

Annual cost is £386.50 x 13 doses = £5,024.50

Has dose escalation been considered as part of the NICE costing template? No.

Costing information/100,000 population and per CCG:
No significant resource impact is anticipated.

NICE do not expect this guidance to have a significant impact on resources; that is, the resource impact of implementing the recommendations in England will be less than £5 million per year (or £9,000 per 100,000 population).

This is because the technology is a further treatment option and the overall cost of treatment will be similar.

Table 1: Erenumab (drug only) costs per ICP (first year of use).

	East Surrey	Guilford & Waverly	North West Surrey	Surrey Downs
Episodic migraine				
People who continue treatment	£ 10,733	£ 12,397	£ 20,256	£ 17,007
People who stop treatment at 12 weeks and revert to best supportive care (BSC)	£ 604	£ 697	£ 1,140	£ 957
Subtotal episodic migraine	£ 11,337	£ 13,094	£ 21,396	£ 17,964
Chronic migraine				
People who continue treatment	£ 12,365	£ 14,277	£ 23,312	£ 19,577
People who stop treatment at 12 weeks and revert to BSC	£ 994	£ 1,147	£ 1,873	£ 1,573
Subtotal chronic migraine	£ 13,359	£ 15,424	£ 25,185	£ 21,150
Total drug costs for episodic and chronic migraine	**£ 24,696**	**£ 28,518**	**£ 46,581**	**£ 39,114**
Population of people aged 18 or over	143,478	165,668	270,500	227,163
Cost per 100,000 people aged 18 or over	**£ 17,212**	**£ 17,214**	**£ 17,220**	**£ 17,218**

The costs of each of the anti-CRGPs will be taken into account when the pathway for the use of these drugs is further developed.

Availability of PAS and details (if appropriate):
The PAS price is available to trusts, which would reduce this cost.

The PAS price only applies to trusts and primary care headache clinics would not be able to prescribe and supply at this reduced price.

Availability of homecare service (if appropriate): Yes

Resource impact statement:
See Appendix 1 and Table 1 above.

Funding of this NICE TA is mandatory. Using the NICE resource template, which takes into account follow up appointment activity and change in practice over 5 years for both chronic and episodic migraine, the impact for ICP areas for **ALL THREE new anti-CRGPs** is shown as follows:

	Change in costs (£'000)		
	Year 1	Year 5	
East Surrey	10	47	*No ICP area exceeds the £100K financial threshold for APC decision making*
Guildford & Waverley	11	54	
North West Surrey	18	89	
Surrey Downs	15	75	

**NICE funding requirements are based on Quality Adjusted Life Years (QALY) threshold. If there is evidence that the incremental cost rises above this threshold in the future, the APC may reconsider the commissioning status.*

Alternative treatments and cost per patient per year

Other NICE recommended products:

NICE Botulinum toxin type A for the prevention of headaches in adults with chronic migraine. Technology appraisal guidance. Published: 27 June 2012

The current annual cost per patient is £1,419, as described below:

	Dose mg/vial	Frequency (weeks)	Price per vial	Annual cost
Drug costs	200	12	£238.8	£955

	Cost per appointment	Annual number of appointments	Annual cost
Administration costs	£116	4	£464

Although botulinum toxin type A is recommended by NICE, there are lengthy waiting lists and it is not always available in some areas of the country.

NICE Fremanezumab for preventing migraine. Technology appraisal guidance. Published: 3 June 2020

Fremanezumab and galcanezumab are both anti-calcitonin gene-related peptides (CGRPs) monoclonal antibody treatments:

Anti-CGRP	Annual cost
Fremanezumab (Ajovy®) – both monthly and quarterly dosing	£5,400
Galcanezumab (Emgality®) – monthly dosing	£5,850

The NICE TA for fremanezumab supports use in chronic migraine only. The NICE TA for galcanezumab supports use in both episodic and chronic migraine.

Please note:

'The committee was aware the scope did not include other medicines in the anti-calcitonin gene-related peptide (CGRP) class as potential comparators. Therefore erenumab was not formally compared with them.

It noted that there was insufficient clinical evidence to support any difference in efficacy between the different anti-CGRP drugs. Because the drugs target the same pathway it is plausible that their effectiveness is similar.

The committee also noted that treatment preferences are not outlined in the British Association for the Study of Headache (BASH) guidelines. BASH and the Association of British Neurologists explained that, although there is some evidence for using another anti-CGRP drug after the failure of the first, treatment preferences are not outlined in BASH's guidelines because there is no overall evidence to favour the use of 1 particular anti-CGRP drug over any of the others.

Therefore the committee considered it reasonable that the least expensive drug would be used unless an alternative was more suitable for the person. The committee concluded that treatment with another anti-CGRP drug, after failure of a previous anti-CGRP drug, could not be assessed.'

Options not reviewed by NICE but used in standard practice:
Treatment options for preventing chronic or episodic migraine include beta-blockers, antidepressants and anticonvulsant drugs.

The company's submission focused on people with migraine for whom at least 3 previous preventive treatments had failed (defined as insufficient or partial response, insufficient dosage or adverse events).

The NICE TAs for botulinum toxin type A and fremanezumab do not support their use in episodic migraine.

Impact to patients

- An additional treatment option would be valued by patients, particularly those resistant to current treatments.
- Another anti-CGRP treatment option for episodic migraine.
- Ease of use in comparison to botulinum toxin type A treatment (a 30-minute hospital appointment every 12 weeks for administration which consists of between 31 to 39 injections in the head and neck region).
- Limited to monthly dosing schedule compared to fremanezumab where a choice of monthly or quarterly dosing is available.
- Available under a homecare service so will be delivered directly to the patient.
- Patients in primary care headache services would need to be referred to the trust as a RED drug and in order to access the PAS price.
- Training may be required before a person can self-administer the treatment.
- Carers may have to help administer the sc injection if the patient has issues with dexterity or needle-phobia.

Impact to primary care prescribers

- This is a PbRe drug and is commissioned by CCGs for use in secondary care. There should be no prescribing in primary care.
- Primary care prescribers should be aware that their patient is receiving this medicine and ensure that this is recorded in the patient's notes in order to be alert to potential side-effects and interactions with other medicines prescribed in primary care. This will also ensure that GP records, which are accessed by other healthcare providers, are a true and accurate reflection of the patient's medication.
- Patients in primary care headache services would need to be referred to the trust as this is a RED drug and in order to access the PAS price in line with this TA.

Impact to secondary care

- An additional treatment option would be valued by clinicians.
- The initiation, administration and on-going treatment is managed by secondary care.
- Homecare arrangements will be managed by the trust.
- As it is available on homecare, patients will only require appointments for review and/or monitoring.
- Impact on clinic capacity as trusts are the providers of this service:
    - Potential reduction in the number of appointments for patients currently on botulinum toxin type A who require 12 weekly appointments for) and footfall within the trust.
- Potential increase in demand for appointments as new patients are identified, particularly for episodic migraine and those previously seen at tertiary centres.

Impact to CCGs

- The technology is commissioned by clinical commissioning groups (CCGs) and they are required to comply with the recommendations in a NICE TA within 3 months of its date of publication.
- Providers are NHS hospital trusts.

Implementation

- Trusts to initiate homecare NICE TA implementation must be within 90 days of

publication – 10th June 2021.

- This NICE TA provides another option alongside botulinum toxin type A and fremanezumab.
- Blueteq forms to be developed.
- Trusts to initiate homecare.
- Adapt the 'Secondary care pathway for prophylaxis of headaches in adults with chronic migraine: Fremanezumab NICE TA631 and Botulinum toxin type A NICE TA260 (specialist use only)' to include use of galcanezumab and erenumab, in both episodic and chronic migraine as per NICE TAs.

Recommendation to PCN

PbRe: Yes

Recommended traffic light status (see attached guidelines): Red

Additional comments:

References:

1 Specification of Product Characteristics. Aimovig 70 mg solution for injection in pre-filled pen. Available at: https://www.medicines.org.uk/emc/product/9380/smpc Accessed <16.3.21>

2 NICE Technology Appraisal Guidance: Erenumab for preventing migraine. Technology appraisal guidance [TA682]. Published 10 March 2021. Available at: https://www.nice.org.uk/guidance/TA682 Accessed <16.3.21>

3 NICE Resource impact report: Erenumab for preventing migraine. Technology appraisal guidance [TA682]. Published date: 10 March 2021. Available at: https://www.nice.org.uk/guidance/ta682/resources Accessed <16.3.21>

Declaration of interests:

	Name	Role	Date	Declaration of interests (please give details below table)
Prepared by	Tejinder Bahra	Lead Commissioning Pharmacist	17.3.21	None
Reviewed by:				

Explanation of declaration of interest:

VERSION CONTROL SHEET

Version	Date	Author	Status	Comment
1	17.3.21	Tejinder Bahra	Draft	Out for review
2	6.4.21	Tejinder Bahra	Final	Out for clinical comment
3	21.4.21	Tejinder Bahra	Final	Include clinical comment

Appendix 1: Total number of people eligible for treatment with erenumab, galcanezumab or fremanezumab.

	Local assumption current practice % of people	Local assumption current practice number of people			
		East Surrey	**Guilford & Waverly**	**North West Surrey**	**Surrey Downs**
Episodic migraine					
Population of people aged 18 or over	-	143,478	165,668	270,500	227,163
Prevalence of migraine	14.3%	20,517	23,691	38,682	32,484
People who have episodic migraine (4 or more migraine headache days per month)	88.0%	18,055	20,848	34,040	28,586
People who have preventative therapy	28.0%	5,055	5,837	9,531	8,004
People who have had 3 or more prior treatment failures	9.3%	470	543	886	744
Total number of people eligible for treatment with erenumab or galcanezumab	**100.0%**	**469**	**542**	**885**	**743**
Chronic migraine					
Population of people aged 18 or over	-	143,478	165,668	270,500	227,163
Prevalence of migraine	14.3%	20,517	23,691	38,682	32,484
People who have chronic migraine	12.0%	2,462	2,843	4,642	3,898
People who have preventative therapy	28.0%	689	796	1,300	1,091
People who have had 3 or more prior treatment failures	28.0%	193	223	364	306
Total number of people eligible for treatment with erenumab, fremanezumab or galcanezumab	**100.0%**	**193**	**223**	**364**	**306**
Total number of people eligible for treatment with erenumab, fremanezumab or galcanezumab - chronic episodic		**662**	**765**	**1,249**	**1,049**