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

NICE Technology Appraisals: Local implementation

NICE TA Guidance[1]	Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs Technology appraisal guidance TA815 **Please note;** this guidance replaces Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs Technology appraisal guidance TA711		
Available at	https://www.nice.org.uk/guidance/ta815		
Date of issue	10 August 2022	**Implementation deadline**	90 days

Medicine details	
Name, brand name	Guselkumab (Tremfya)
Manufacturer	Janssen-Cilag Ltd
Licensed indication[2]	Tremfya, alone or in combination with methotrexate (MTX), is indicated for the treatment of active psoriatic arthritis in adult patients who have had an inadequate response or who have been intolerant to a prior disease-modifying antirheumatic drug (DMARD) therapy (accessed 11/08/2022)
Formulation	Each pre-filled pen contains 100 mg of guselkumab in 1 mL solution. Guselkumab is a fully human immunoglobulin G1 lamda (IgG1λ) monoclonal antibody (mAb) to the interleukin (IL)-23 protein, produced in Chinese Hamster Ovary (CHO) cells by recombinant DNA technology.(accessed 11/08/2022)
Usual dosage	The recommended dose of Tremfya is 100 mg by subcutaneous injection at weeks 0 and 4, followed by a maintenance dose every 8 weeks. For patients at high risk for joint damage according to clinical judgement, a dose of 100 mg every 4 weeks may be considered. Consideration should be given to discontinuing treatment in patients who have shown no response after 24 weeks of treatment. (accessed 11/08/2022).
NICE recommended dosage/schedule	The dosage schedule is available in the summary of product characteristics for guselkumab (at time of publication – copy embedded below).

Disease and potential patient group	
Brief description of disease[3]	Psoriatic arthritis is a type of arthritis that affects some people with the skin condition psoriasis. It typically causes affected joints to become swollen, stiff and painful. Active psoriatic arthritis is defined as 3 or more tender joints and 3 or more swollen joints. Like psoriasis, psoriatic arthritis is a long-term condition that can get progressively worse. If it's severe, there's a risk of the joints becoming permanently damaged or deformed, and surgery may be needed. But if psoriatic arthritis is diagnosed and treated early, it's progression can be

slowed down and permanent joint damage can be prevented or minimised.

The severity of the condition can vary considerably from person to person. Some people may have severe problems affecting many joints, whereas others may only notice mild symptoms in 1 or 2 joints.

There may be times when symptoms improve (known as remission) and periods when they get worse (known as flare-ups or relapses).

Relapses can be very difficult to predict but can often be managed with medicine when they do occur.

Causes of psoriatic arthritis

Almost 1 in 3 people with psoriasis also have psoriatic arthritis.

It tends to develop 5 to 10 years after psoriasis is diagnosed, although some people may have problems with their joints before they notice any skin-related symptoms.

Like psoriasis, psoriatic arthritis is thought to happen as a result of the immune system mistakenly attacking healthy tissue.

But it's not clear why some people with psoriasis develop psoriatic arthritis and others do not.

The aim of treatment is to control joint and connective tissue inflammation. This prevents joint damage progressing and the associated pain and disability.

Potential patient numbers per 100,000[4]

Table 1. NICE resource planner – potential number of patients eligible for Guselkumab as per NICE TA815, for NHS Surrey Heartlands ICS (total population 1,052,425)

Potential patient numbers: 3.42/100,000 population

Recommendation of NICE TA815	Local assumption current practice (local input)	Local assumption current practice (local input)
1.1 Guselkumab, alone or with methotrexate, is recommended as an option for treating active psoriatic arthritis in adults whose disease has not responded well enough to disease-modifying antirheumatic drugs (DMARDs) or who cannot tolerate them, only if they have 2 conventional DMARDs and: •had at least 1 biological DMARD •tumour necrosis factor (TNF)-alpha inhibitors are contraindicated but would otherwise be considered	% of people	Number of people
Adult population		817,850
Prevalence of active psoriatic arthritis 2019	0.19%	1,554
Adult population forecast in 2026/27		851,080
Prevalence of active psoriatic arthritis	0.19%	1,617
Proportion of people suitable for a biologic treatment	20.00%	323

	Proportion of people who have had 2 conventional DMARDs and at least one biological DMARD	36.00%	116
	Proportion of people who have peripheral arthritis with 3 or more tender joints and 3 or more swollen joints	31.00%	36
	Number of people eligible for treatment		**36**

SUMMARY

NICE recommendation

1.1 Guselkumab, alone or with methotrexate, is recommended as an option for treating active psoriatic arthritis in adults whose disease has not responded well enough to disease-modifying antirheumatic drugs (DMARDs) or who cannot tolerate them. It is recommended only if they have had 2 conventional DMARDs and:

- have had at least 1 biological DMARD, or
- tumour necrosis factor (TNF)-alpha inhibitors are contraindicated but would otherwise be considered (as described in NICE's technology appraisal guidance on etanercept, infliximab and adalimumab for the treatment of psoriatic arthritis).

Guselkumab is recommended only if the company provides it according to the commercial arrangement. Active psoriatic arthritis is defined as peripheral arthritis with 3 or more tender joints and 3 or more swollen joints.

1.2 Assess the response to guselkumab from 16 weeks. Stop guselkumab at 24 weeks if the psoriatic arthritis has not responded adequately using the Psoriatic Arthritis Response Criteria (PsARC; an adequate response is an improvement in at least 2 of the 4 criteria, 1 of which must be joint tenderness or swelling score, with no worsening in any of the 4 criteria). If the PsARC response is not adequate but there is a Psoriasis Area and Severity Index (PASI) 75 response, a dermatologist should decide whether continuing treatment is appropriate based on skin response.

1.3 Take into account any physical, sensory or learning disabilities, or communication difficulties that could affect the responses to the PsARC and make any adjustments needed.

1.4 Take into account how skin colour could affect the PASI score and make any adjustments needed.

1.5 These recommendations are not intended to affect treatment with guselkumab 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

People with active psoriatic arthritis that is not controlled well enough with 2 conventional DMARDs are usually offered biological DMARDs. Many of these are already recommended by NICE for treating psoriatic arthritis. Guselkumab is a biological DMARD.

Clinical evidence shows that guselkumab is effective compared with placebo, but it has not been compared directly with other biological DMARDs for treating psoriatic arthritis. An indirect comparison suggests that guselkumab is as effective as the biological DMARDs secukinumab and ixekizumab, particularly for skin symptoms.

For people who have had 2 conventional DMARDs and at least 1 biological DMARD, guselkumab's cost-effectiveness estimates are within the range that NICE normally considers an acceptable use of NHS resources.

For people who have had 2 conventional DMARDs and for whom TNF-alpha inhibitors are contraindicated, the costs and benefits are similar to those of other treatments recommended by NICE.

So, guselkumab is recommended for both of these groups.

Cost implications*

Cost of product:

The cost of a 100 mg pre-filled disposable injection of guselkumab is £2,250.00 (excluding VAT; BNF online,

accessed May 2022). The company has a commercial arrangement (simple discount patient access scheme and complex patient access scheme). This makes guselkumab available to the NHS with a discount. The size of the simple patient access scheme discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

Annual cost per patient:
The recommended dose is 100 mg administered as a subcutaneous injection at week 0, week 4, and every 8 weeks thereafter (for simplicity, 8 weekly dosing assumed. Can be given every 4 weeks after induction dose).

Annual costs	No. of doses	Annual cost
Year 1	8	£18,000
Year 2 onwards	7	£14,625

Has dose escalation been considered as part of the NICE costing template?
Dose intensification to 4 weekly dosing after induction dose has been included in the NICE resource impact calculator

In the complex patient access scheme, the 4-weekly regimen is provided at the same cost as an 8-weekly regimen. Where patients require q4w (every 4 weeks) dosing, the price will be equalised with q8w (every 8 weeks) dosing by supplying 2 x Tremfya 100mg One-Press (pre filled pen) for the price of 1.

Costing information/100,000 population and per CCG:
NICE does 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, based on a population for England of 56.3 million people).
This is because the technology is a further treatment option and is available at a similar price to the current treatment options.

Availability of PAS and details (if appropriate):
The company has a commercial arrangement. This makes guselkumab available to the NHS with a discount. The size of the simple patient access scheme discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

Availability of homecare service (if appropriate): Yes, if provider arranges for contract

**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 / per month as appropriate)

Other NICE recommended products:
Please refer to NHS Surrey Heartlands CCG's 'Psoriatic Arthritis (PsA) Treatment Pathway in Adults' available at:
https://surreyccg.res-systems.net/PAD/Search/DrugConditionProfile/6444 Update of this pathway is included in submission

- Adalimumab, certolizumab pegol, etanercept, golimumab and infliximab are tumour necrosis factor (TNF)-alpha inhibitors.
- Ixekizumab and secukinumab are IL-17A inhibitors.
- Ustekinumab is an IL-12 / IL-23 inhibitor.
- Tofacitinib is a Janus kinase (JAK) inhibitor.
- Apremilast is a PDE 4 inhibitor.
- Risankizumab is an IL-23 inhibitor (same as this drug)

Impact to patients

- Guselkumab was already made available to patients under existing pathway. This new TA replaces the previous one, and now means that patients who are contra-indicated to anti-TNF agents will now be able to access guselkumab as a first line treatment if agreed between patient and clinician.

- This is the first biologic drug where dose intensification is routinely available to patients – this will be of value to a limited number of patients.
- Guselkumab should be made available under a homecare service so will be delivered directly to the patient.

Impact to primary care prescribers

- Guselkumab is commissioned by integrated care systems and clinical commissioning groups. Providers are NHS hospital trusts. There should be no prescribing in primary care.
- Primary care prescribers should be aware that their patient is receiving guselkumab 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.

Impact to secondary care

- The initiation, administration and on-going treatment is managed by secondary care.
- Homecare arrangements will be managed by the trust.
- This is the first biologic drug where dose intensification is routinely available to patients – the ability to do this will be valued by clinicians.

Impact to CCGs

- The technology is commissioned by integrated care systems and clinical commissioning groups and they are required to comply with the recommendations of this NICE TA within 90 days of its date of publication.
- Providers are NHS hospital trusts.
- No potential savings for out-patient appointments as guselkumab is another treatment option within a large group of existing choices.

Implementation

- NICE TA implementation must be within 90 days of publication.
- Blueteq forms to be developed.
- Trusts to follow internal governance procedures to add to their formulary and initiate. Homecare systems.
- Pathway to be discussed at Rheumatology Network.

Recommendation to APC

PbRe: Yes

Colour classification guidelines

Recommended traffic light status (see attached guidelines):

- Due to criteria 1 and 8 of the RED colour classification framework – RED status is advised

Additional comments:

See proposed Blueteq forms (below)

Area Prescribing Committee - Decision-making criteria

1	National guidance and priorities	• NICE published this Technology Appraisal (TA815) on 10th August 2022 with a 90-day implementation deadline. Surrey Heartlands ICB is mandated to fund this treatment.
2	Clinical effectiveness	• Guselkumab is to be used as per its licensed indication only, and as per the NICE guidance recommendations. NICE concluded that this drug was at least as clinically effective as other drugs available. Safety and efficacy in people under the age of 18 years has not been established.
3	Patient safety	• Guselkumab is licensed for this indication in the UK, it is an injectable drug; packaged and marketed with the intention that patients would self-inject. Risk of sharps injury would be mitigated by suitable patient training and waste management. • As with all systemic immunosuppressants, prescribers should be aware of patient risk of reduced immune response to infection, and this should be considered when triaging patient exhibiting symptoms. GP practice records should be maintained accordingly (this should be reiterated in the PAD

		narrative). • The drug is already used for this indication and no other additional concerns were identified with regards to patient safety.
4	Patient factors	• Guselkumab constitutes an alternative option for those patients who have yet to try an IL23 inhibitor but does not add a further therapeutic line to the current treatment pathway. • This new TA does allow access to guselkumab for patients who may be unable to use anti-TNFs as their first line agent, however agents other anti-TNFs have been previously available to these patients anyway. • Patient education materials, injection technique training and additional support is provided. • Alternative options / products are available to those patients who will not/cannot use injectable products.
5	Environmental impact	• Guselkumab is only available as an injection. It is likely that the product would be delivered to the patient's home via a dedicated homecare service using a refrigerated van - this could be considered as an **additional carbon load** due to extra road traffic. • **Packaging waste** would be additional to usual municipal waste recycling or landfill. • **Medical sharps waste** would be collected and disposed of by the homecare company. • Discharge into the **wastewater** system (post-metabolism) from an individual patient is unlikely to have a significant impact short term, however the long-term impact to the water ecosystem is unknown.
6	Equality & diversity	• **Disabilities** – patients with physical or learning impairment may not be able to access this treatment if they cannot to easily/safely use the pre-filled syringe that the drug is packaged in. Alternative drug / administration options are available for those patients who are not able to self-inject. • **Religion & beliefs** - Guselkumab is produced using mammalian ovary cells, and therefore is considered a "biological" medicine. This NICE TA could be considered to have a negative impact upon patients who follow a vegan lifestyle. Alternative products of a non-biological nature are available for psoriatic arthritis. • **Age** – Guselkumab is only licensed for patients over the age of 18 years – younger patients will not be able to access this treatment under this TA. Alternative products are available for patients under the age of 18 years. IFR policy remains an option if clinicians wish to prescribe off-label (subject to patient numbers). • **Race / skin colour** – NICE has specified the following – "Take into account how skin colour could affect the PASI score and make any adjustments needed." Clinicians should already be aware of this in their day-to-day use of assessment tools, as although rare for NICE to be so explicit in their recommendations, this requirement has been included in national guidance for a while now.
7	Place in therapy relative to available treatments	• This drug does not constitute either a new class of treatment, or an additional line of treatment to those already available on the current treatment pathway. It is an alternative option for patient/clinician choice.
8	Stakeholder views	• Specialist clinicians who sit in the Surrey Rheumatology Network and the wider APC audience have been consulted on this paper. Comments received are displayed below.
9	Cost-effectiveness	• 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, based

		on a population for England of 56.3 million people). This is because the technology is a further treatment option and is available at a similar price to the current treatment options.
10	Additional funding required	• Not applicable, budget uplift anticipated as per NICE cost calculations from DOHSC. • Anticipated cost is less than £100k/Place/annum financial threshold for APC decisions.
11	Identified implementation issues	• None identified, prescribing, administration and supply will be the same as for other drugs already used in the treatment pathway. Drug should be identified as RED (hospital use only) because of its specialist nature and Hospital National Tariff exempt status. Extra workload will be minimal as patients will already be known to the clinics involved. GPs should continue to ensure patient practice records are kept up to date.

References:

1. Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs NICE Technology Appraisal TA815. Available at : https://www.nice.org.uk/guidance/ta815 Accessed 11/08/2022
2. eMC Tremfya 100 mg solution for injection in pre-filled pen - Summary of Product Characteristics. Available at: Tremfya 100 mg solution for injection in pre-filled pen - Summary of Product Characteristics (SmPC) - (emc) (medicines.org.uk)Accessed on 11/08/2022 Embedded copy - Tremfya 100 mg solution for injectio
3. Psoriatic arthritis. NHS. Available at: https://www.nhs.uk/conditions/psoriatic-arthritis/ Accessed 21/07/2022
4. NICE Resource impact statement & template Available at: https://www.nice.org.uk/guidance/ta815/resources Accessed 21/07/2022

Prepared by:

Georgina Randall, Senior Pharmacy Technician, Pharmaceutical Commissioning, NHS Surrey Heartlands ICB

Declaration of Interest:

None to declare

Date:

Reviewed by:

Tejinder Bahra, Lead Commissioning Pharmacist, East Surrey Place, NHS Surrey Heartlands ICB

Declaration of Interest:

None to declare

Date: