East Surrey CCG, Guildford & Waverley CCG, North West Surrey CCG, Surrey Downs CCG, Surrey Heath CCG, Crawley CCG, Horsham & Mid-Sussex CCG

Briefing Paper for Prescribing Clinical Network on NICE Technology Appraisals: Local implementation

NICE TA Guidance	Baricitinib for moderate to severe rheumatoid arthritis Technology appraisal guidance 466		
Available at	https://www.nice.org.uk/guidance/ta466		
Date of issue	9 August 2017	**Implementation deadline**	9 November 2017

Medicine details[1]	
Name, brand name and manufacturer	Baricitinib (Olumiant®) 2 mg film-coated tablets Baricitinib (Olumiant®) 4 mg film-coated tablets Eli Lilly and Company Limited
Licensed indication	Olumiant® is indicated for the treatment of moderate to severe active rheumatoid arthritis in adult patients who have responded inadequately to, or who are intolerant to one or more disease-modifying anti-rheumatic drugs. Olumiant® may be used as monotherapy or in combination with methotrexate.
Formulation	Olumiant® 2 mg and 4mg film-coated tablets
Usual dosage	Treatment should be initiated by physicians experienced in the diagnosis and treatment of rheumatoid arthritis. Posology The recommended dose of Olumiant® is 4 mg once daily. A dose of 2 mg once daily is appropriate for patients such as those aged ≥ 75 years and may be appropriate for patients with a history of chronic or recurrent infections. A dose of 2 mg once daily may also be considered for patients who have achieved sustained control of disease activity with 4 mg once daily and are eligible for dose tapering. This is the same recommended dose and schedule as the NICE TA. *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 Prescribing Clinical Network and will not be routinely funded by local commissioners.*

Disease and potential patient group	
Brief description of disease[2]	The symptoms of rheumatoid arthritis often develop gradually over several weeks, but some cases can progress quickly over a number of days. The symptoms vary from person to person. They can come and go, and may change over time. The patient may occasionally experience flares when the condition deteriorates and the symptoms become more severe. Rheumatoid arthritis mainly affects the joints. It can cause problems in any joint in the body, although the small joints in the hands and feet are often the first to be affected.

	Rheumatoid arthritis typically affects the joints symmetrically (both sides of the body at the same time and to the same extent), but this isn't always the case. The main symptoms affecting the joints are: **Pain:** Usually throbbing and aching. It is often worse in the mornings and after a period of inactivity. **Stiffness:** Often more severe in the morning and lasting longer than 30 minutes or after a period of inactivity. **Swelling, warmth and redness:** The lining of joints affected by rheumatoid arthritis become inflamed, which can cause the joints to swell, and become hot and tender to touch. In some people, firm swellings called rheumatoid nodules can also develop under the skin around affected joints. **Additional symptoms:** As well as problems affecting the joints, some people with rheumatoid arthritis experience a range of more general symptoms, such as: • tiredness and a lack of energy • a high temperature (fever) • sweating • a poor appetite • weight loss The inflammation associated with rheumatoid arthritis can also sometimes cause problems affecting other areas of the body, such as: • dry eyes – if the eyes are affected • chest pain – if the heart or lungs are affected
Potential patient numbers per 100,000	One study in the UK found the population minimum prevalence of RA to be 1.16% in women and 0.44% in men. The incidence of the condition is low, with around 1.5 men and 3.6 women developing RA per 10,000 people per year.

SUMMARY

Guidance[4]
1.1Baricitinib, with methotrexate, is recommended as an option for treating active rheumatoid arthritis in adults whose disease has responded inadequately to intensive therapy with a combination of conventional disease-modifying antirheumatic drugs (DMARDs), only if: • disease is severe (a disease activity score [DAS28] of more than 5.1) and • the company provides baricitinib with the discount agreed in the patient access scheme. 1.2 Baricitinib, with methotrexate, is recommended as an option for treating active rheumatoid arthritis in adults whose disease has responded inadequately to or who cannot have other DMARDs, including at least 1 biological DMARD, only if: • disease is severe (a DAS28 of more than 5.1) and • they cannot have rituximab and • the company provides baricitinib with the discount agreed in the patient access scheme.

1.3 Baricitinib can be used as monotherapy for people who cannot take methotrexate because it is contraindicated or because of intolerance, when the criteria in sections 1.1 and 1.2 are met.

1.4 Continue treatment only if there is a moderate response measured using European League Against Rheumatism (EULAR) criteria at 6 months after starting therapy. After an initial response within 6 months, withdraw treatment if at least a moderate EULAR response is not maintained.

1.5 These recommendations are not intended to affect treatment with baricitinib 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

Clinical trials showed baricitinib plus conventional disease-modifying antirheumatic drugs (DMARDs) to be more effective than conventional DMARDs alone for treating severe active rheumatoid arthritis that has not responded adequately to conventional or biological DMARDs. Some trial evidence also suggests that in people who have not previously had DMARDs, baricitinib works as well when taken alone as it does when taken with conventional DMARDs.

Baricitinib plus conventional DMARDs was also shown to have similar effectiveness to the biological DMARD adalimumab in people whose disease has responded inadequately to conventional DMARDs. Because there are no trials which compare baricitinib with other biological DMARDs, the company did an indirect comparison. Baricitinib was shown to work as well as most of the biological DMARDs which NICE has already recommended in this indication.

Based on the health-related benefits and costs compared with conventional and biological DMARDs, baricitinib plus conventional DMARDs was recommended as a cost-effective treatment, in line with previous recommendations in NICE technology appraisal guidance on:

- certolizumab pegol (after a TNF-alpha inhibitor)
- adalimumab, etanercept, infliximab, certolizumab pegol, golimumab, tocilizumab and
- abatacept (after conventional DMARDs)
- tocilizumab
- golimumab (after DMARDs)
- adalimumab, etanercept, infliximab, rituximab and abatacept (after a TNF-alpha inhibitor).

Please note that baricitinib is licensed for moderate (a disease activity score [DAS28] between 3.2 and 5.1) to severe (a disease activity score [DAS28] of more than 5.1) active rheumatoid arthritis but the NICE TA recommendations are for severe disease i.e. DAS28 of more than 5.1.

Cost implications*,[3,4]

Cost:
The list price of a 28-tablet pack of 2mg or 4mg baricitinib is £805.56. Each dose will also be available in 84-tablet packs at a pro-rata price from late 2017.

Annual or monthly cost per patient:
The average cost per patient per year is estimated at £10,501 based on the list price.

Availability of PAS and details (if appropriate): Yes
The company has agreed a patient access scheme with the Department of Health. This scheme provides a simple discount to the list price of baricitinib, with the discount applied at the point of purchase or invoice.

The level of the discount is commercial in confidence. The Department of Health considered that this patient access scheme does not constitute an excessive administrative burden on the NHS.

Availability of homecare service (if appropriate): Yes

NICE Resource impact statement:
'No significant resource impact is anticipated.

We do not expect this guidance to have a significant impact on resources; that is, it will be less than £5 million per year in England (or £9,100 per 100,000 population). This is because the technology is an option alongside current standard treatment options.

The list price of baricitinib has a discount that is commercial in confidence.'

**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 PCN may reconsider the commissioning status.*

Alternative treatments and cost per patient per year

Other NICE recommended products:

Table 1: Cost of comparators[5]

Medicine	Dose Regimen	Cost per year
baricitinib	**2 to 4mg orally once a day**	**£10,473**
abatacept	125mg SC once a week	£15,725
tocilizumab	162 mg SC once a week	£11,871
tocilizumab	8mg/kg IV every four weeks	£9,984
certolizumab pegol	400mg SC at weeks 0, 2, 4 then 200mg SC every two weeks	£9,295 (£10,368 in year 1)
etanercept	50 mg SC once a week or 25mg twice a week	£9,295
adalimumab	40mg SC every two weeks	£9,156
golimumab	50 mg SC once a month	£9,156
infliximab	Initially 3 mg/kg by IV infusion at weeks 0, 2, 6, then every eight weeks	£6,786 £10,179 (in year 1)

Doses are for general comparison and do not imply therapeutic equivalence. Costs are from eVadis on 16 May 2017, except infliximab (MIMS). Dose assumes weight of 70kg. Costs calculated using the full cost of vials/ampoules assuming wastage. Costs do not take any patient access schemes into consideration. IV = intravenous; SC = subcutaneous

This table from the SMC does not include the price of biosimilar etanercept which is slightly over £5,000 per year and the additional infusion suite costs associated with the IV treatments.

Impact to patients

- An additional treatment option of baricitinib would be valued by patients. It is an oral preparation and as a JAK inhibitor has a new mode of action.
- An oral route of administration which may be preferred by patients over having to have a regular infusion or inject themselves. This is an important factor for people who have difficulty injecting themselves because of the disease affecting their hands.
- Carers often have to help patients with their biologic therapy and with an oral medicine like baricitinib, the patient becomes more independent in taking their medication.[5]
- Baricitinib is available under a homecare service so will be delivered directly to the

patient.
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 baricitinib in order to be alert to potential side-effects and interactions with other medicines prescribed in primary care.
Impact to secondary care
• The initiation, administration and on-going treatment is managed by secondary care. • Homecare arrangements will be managed by the trust. • Baricitinib is available on homecare and patients will only require appointments for review and/or monitoring. • An additional treatment option of baricitinib would be valued by clinicians.
Impact to CCGs
• The technology is commissioned by clinical commissioning groups (CCGs). • Providers are NHS hospital trusts. • Potential savings for out-patient appointments as baricitinib is available on homecare. • There is a cohort of patients who are eligible to receive baricitinib although they have been through the available lines of treatment within the rheumatoid arthritis pathway.
Implementation
• NICE TA implementation must be within 90 days of publication – 9th November 2017. • Blueteq forms to be developed. • Trusts to initiate homecare. • Pathway to be discussed at Rheumatology Network. At present, the pathway comprises of 4 lines of treatment, of which baricitinib is expected to be an option.
Recommendation to PCN
PbRe: Y **Recommended traffic light status (see attached guidelines):** RED **Additional comments:**

References:

1 Specification of Product Characteristics. Olumiant 2 mg and 4 mg Film-Coated Tablets. Available at: https://www.medicines.org.uk/emc/medicine/32997 Accessed <6.9.17>

2 NHS Choices. Rheumatoid arthritis – symptoms. Accessed 3.11.16. Available at: http://www.nhs.uk/Conditions/Rheumatoid-arthritis/Pages/Symptoms.aspx Accessed <6.9.17>

3 NICE Resource impact report: Baricitinib for moderate to severe rheumatoid arthritis. Published 9 August 2017. Available at: https://www.nice.org.uk/guidance/ta466/resources Accessed <6.9.17>

4 NICE Technology appraisal 446: Baricitinib for moderate to severe rheumatoid arthritis. Published 9 August 2017. Available at: https://www.nice.org.uk/guidance/ta466 Accessed <6.9.17>

5 SMC. Baricitinib 2mg and 4mg film-coated tablet (Olumiant®) SMC No 1265/17. Available at:

http://www.scottishmedicines.org.uk/SMC_Advice/Advice/1265_17_baricitinib_Olumiant Accessed <12.9.17>

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Declaration of Interest:

None.

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Declaration of Interest:

None.

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Comments:

VERSION CONTROL SHEET

Version	Date	Author	Status	Comment
1	3.10.17	T. Bahra	Draft	Out for peer review
2	5.10.17	T. Bahra	Draft	Out for clinician comment
3	25.10.17	T. Bahra	Final	Incorporate clinician comment and amendments as suggested