NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Baricitinib for treating moderate to severe atopic dermatitis (TA681)

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Summary

NICE has recommended baricitinib as an option for treating moderate to severe atopic dermatitis in adults, only if the disease has not responded to at least 1 systemic immunosuppressant, such as ciclosporin, methotrexate, azathioprine, and mycophenolate mofetil, or these are not suitable, and the company provides baricitinib according to the commercial arrangement.

We estimate that:

- Around 7,650 people with moderate to severe atopic dermatitis are eligible for treatment with baricitinib
- Around 380 people will commence treatment with baricitinib each year from 2021/22 onwards as shown in table 1. Of these, around 100 people will discontinue baricitinib each year at week 16 because of inadequate response
- Around 1,400 people will continue treatment with baricitinib by 2025/26.

Table 1 Estimated number of people in England receiving baricitinib

Population having baricitinib each year	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**
Uptake rate for baricitinib (%)	5	10	15	20	25
People commencing treatment each year	380	380	380	380	380
People discontinuing at 16 weeks because of inadequate response	-100	-100	-100	-100	-100
People continuing treatment in year	280	280	280	280	280
People continuing with treatment from previous years	0	280	560	840	1,120
Total people continuing treatment	**280**	**560**	**840**	**1,120**	**1,400**

This report is supported by a local resource impact template because the list price of baricitinib has a discount that is commercial-in-confidence. The

discounted price of baricitinib can be put into the template and other variables may be amended.

This technology is commissioned by clinical commissioning groups. Providers are NHS hospitals, with potential for baricitinib being delivered through homecare medicines services.

1 Baricitinib

1.1 NICE has recommended baricitinib as an option for treating moderate to severe atopic dermatitis in adults, only if:

- the disease has not responded to at least 1 systemic immunosuppressant, such as ciclosporin, methotrexate, azathioprine, and mycophenolate mofetil, or these are not suitable, and
- the company provides baricitinib according to the commercial arrangement.

1.2 The clinical experts explained that atopic dermatitis is a chronic, recurrently flaring, generalised skin condition starting in childhood and continuing into adulthood for most people. People with severe atopic dermatitis may need hospitalisation for treatment.

1.3 People with moderate to severe atopic dermatitis whose disease has not responded to at least 1 systemic immunosuppressant are usually offered either dupilumab or best supportive care. Atopic dermatitis does not always respond to dupilumab, and some people must stop treatment because of adverse effects.

1.4 Baricitinib is an alternative to dupilumab and best supportive care and would likely be offered alongside topical corticosteroids.

2 Resource impact of the guidance

2.1 We estimate that:

- Around 7,650 people with moderate to severe atopic dermatitis are eligible for treatment with baricitinib
- Around 380 people will commence treatment with baricitinib each year from 2021/22 onwards as shown in table 1. Of these, around 100 people will discontinue each year at week 16 because of inadequate response

- Around 1,400 people will continue treatment with baricitinib by 2025/26.

2.2 The current treatment and future uptake figure assumptions are based on the company submission and NICE assumptions and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to have baricitinib by financial year.

Table 2 Estimated number of people receiving baricitinib using NICE assumptions

Population having baricitinib each year	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**
Uptake rate for baricitinib (%)	5	10	15	20	25
People commencing treatment each year	380	380	380	380	380
People discontinuing at 16 weeks because of inadequate response	-100	-100	-100	-100	-100
People continuing treatment in year	280	280	280	280	280
People continuing with treatment from previous years	0	280	560	840	1,120
Total people continuing treatment	**280**	**560**	**840**	**1,120**	**1,400**

2.3 This report is supported by a local resource impact template. The company a commercial arrangement (simple discount patient access scheme). This makes baricitinib 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.

Savings and benefits

2.4 Baricitinib is an oral treatment therefore easily administered compared to other treatments that may need subcutaneous injection.

3 Implications for commissioners

3.1 This technology is commissioned by clinical commissioning groups. Providers are NHS hospitals, with potential for baricitinib being delivered through homecare medicines service.

3.2 Baricitinib falls within the programme budgeting category 214X (problems of the skin).

4 How we estimated the resource impact

The population

4.1 The prevalence of atopic dermatitis is around 1.1 million people in England.

4.2 Table 3 shows the number of people eligible for treatment with baricitinib.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population		56,286,961
Adult population		44,263,393
Prevalence of atopic dermatitis (AD)[1]	2.5	1,106,600
People diagnosed with AD and receiving treatment[2]	69	763,640
People with moderate to severe AD[2]	7	53,440
People with moderate to severe AD eligible for systemic therapy[2]	27	14,430
People with moderate to severe AD with a history of systemic therapy treatment failure and eligible for treatment[2]	53	7,650
Total number of people estimated to have started baricitinib by 2025/26[3]	25	1,910
Number of people continuing treatment by 2025/26[4]		1,400

[1] Barbarot SG, A. Auziere, S. Simpson, E. de Bruin-Weller, M. Girolomoni, G. Puig, L. Chosidow, O. Eckert, L. Epidemiology of Atopic Dermatitis in Adults: Results from an International Survey. 26th European Academy of Dermatology and Venerology (EADV); September 13-17; Geneva, Switzerland

[2] NICE Technology appraisal guidance 534 on dupilumab for treating moderate to severe atopic dermatitis

[3] Company submission

[4] See table 2 for further details

Assumptions

4.3 The resource impact template assumes that:

- Best supportive care and dupilumab are the comparators. Best supportive care includes a combination of emollients, low-to-mid potency topical corticosteroids, and rescue therapy including higher potency topical or oral corticosteroids or topical calcineurin inhibitors.
- The guidance recommends stopping baricitinib at 16 weeks if the atopic dermatitis has not responded adequately. Data for the number of people who stop at 16 weeks is considered confidential by the company. It is assumed the people who may

stop at 16 weeks is the same as for dupilumab (NICE Technology appraisal guidance TA534). It is assumed therefore that around 27% of people receiving baricitinib discontinue because of inadequate response.

- People who stop baricitinib because of inadequate response will receive best supportive care treatment. Therefore, the full year treatment cost for this group in year 1 will include 16 weeks baricitinib costs and 36 weeks best supportive care cost.
- The model does not include further discontinuation of treatment after 16 weeks in year 1. Users can include a discontinuation in years 2 to 5 of the model.
- It is assumed that people who stop baricitinib or dupilumab because of inadequate response in years 2 to 5 will receive best supportive care treatment. A full year cost of best supportive care is applied.
- Robust data are not available to support modelling the use of baricitinib after dupilumab or dupilumab after baricitinib.
- The cost of best supportive care should be considered at a local level and entered into the model.
- Treatment costs for baricitinib and dupilumab may include VAT until response to the treatment has been assessed (at 16 weeks). This is because they may initially be dispensed in secondary care. Thereafter, baricitinib and dupilumab may be available through homecare medicines services and it is assumed VAT will not be incurred. Users can enter a cost of homecare service provision if appropriate.
- The cost for baricitinib and dupilumab include concomitant medication consisting of bathing and emollient products, mid-potency background topical corticosteroids and topical calcineurin inhibitor. The cost of the products used alongside baricitinib or dupilumab should be considered at a local level.
- Baricitinib does not require additional tests or investigations before treatment.

About this resource impact report

This resource impact report accompanies the NICE guidance on baricitinib for treating moderate to severe atopic dermatitis and should be read with it.