NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report: Blinatumomab for treating acute lymphoblastic leukaemia in remission with minimal residual disease activity (TA589)

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Summary

NICE has recommended blinatumomab as an option for treating Philadelphia-chromosome-negative CD19-positive B-precursor acute lymphoblastic leukaemia in adults with minimal residual disease (MRD) activity.

We estimate that:

- around 55 people with acute lymphoblastic leukaemia with MRD are eligible for treatment with blinatumomab
- around 50 people will have blinatumomab from year 2020/21 onwards once uptake has reached 90% as shown in table 1.

Table 1 Estimated number of people in England having blinatumomab

	2019/20	2020/21	2021/22	2022/23	2023/24
Population having blinatumomab each year	20	50	50	50	50

This report is supported by a local resource impact template because the list price of blinatumomab has a commercial arrangement (simple discount patient access scheme). This makes blinatumomab available to the NHS with a discount. The size of the discount is commercial in confidence. The discounted price of blinatumomab can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are NHS hospital trusts.

1 Blinatumomab

1.1 Blinatumomab is recommended as an option for treating Philadelphia-chromosome-negative CD19-positive B-precursor acute lymphoblastic leukaemia in adults with minimal residual disease (MRD) of at least 0.1%, only if:

- the disease is in first complete remission and
- the company provides blinatumomab according to the commercial arrangement.

2 Resource impact of the guidance

2.1 We estimate that:

- around 55 people with acute lymphoblastic leukaemia with MRD are eligible for treatment with blinatumomab each year
- around 50 people will have blinatumomab from year 2020/21 onwards once uptake has reached 90%.

2.2 The current treatment and future uptake figure assumptions are based on clinical opinion and estimates from the company. Table 2 shows the number of people in England who are estimated to have blinatumomab by financial year.

Table 2 Estimated number of people having blinatumomab using NICE assumptions

	2019/20	2020/21	2021/22	2022/23	2023/24
Population having blinatumomab each year	20	50	50	50	50

2.3 This report is supported by a local resource impact template. Blinatumomab has a commercial arrangement (simple discount patient access scheme). This makes blinatumomab available to the NHS with a discount. The size of the discount is commercial in

confidence. The discounted price of blinatumomab can be put into the template and other variables may be amended. For enquiries about the commercial arrangement please contact commercial-team@amgen.com.

Benefits

2.4 Outcomes for adults with acute lymphoblastic leukaemia with MRD are poor. There are currently no approved treatments specifically for MRD B-precursor acute lymphoblastic leukaemia that is in haematological complete remission. The committee concluded that people with MRD B-precursor acute lymphoblastic leukaemia would welcome a new treatment option that would improve symptoms and the chance of survival.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are NHS hospital trusts.

3.2 Blinatumomab falls within the programme budgeting category 02I: Cancer, Haematological.

4 How we estimated the resource impact

The population

4.1 The annual incidence of adults in England with acute lymphoblastic leukaemia is around 290 (Cancer registration statistics, England, 2017). Around 55 people are eligible for treatment with blinatumomab. Table 3 shows the details of the population with acute lymphoblastic leukaemia who are estimated to be eligible for treatment with blinatumomab.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total adult population		43,752,473
Incidence of leukaemia[1]	0.02	8,100
Incidence of acute lymphoblastic leukaemia[1]	3.56	290
People with Philadelphia-chromosome-negative disease[2]	75	215
People with acute lymphoblastic leukaemia with B-cell receptor[3]	82	175
People with B-cell receptor with precursor B-cell[3]	87	155
People with C19 positive B-precursor[4]	100	155
People with precursor B-cell with minimal residual disease (MRD) and in first complete remission after receiving front-line chemotherapy[3]	36	55
Total number of people eligible for treatment with blinatumomab		55
Total number of people estimated to have blinatumomab each year from year 2020/21[5]	90	50

[1] Cancer registration statistics, England, 2017

[2] Cancer research statistics: Acute Lymphoblastic leukaemia

[3] Company submission

[4] Clinicalflow.com/acute-b-lymphoblastic-leukemia-b-all

[5] Clinical opinion

Assumptions

4.2 The resource impact template assumes that:

- Based on expert clinical opinion, and with peak uptake of cancer treatments tending to be reached quickly, the steady state of 90% is assumed to be reached in 2020/21. Uptake is assumed to be half of the peak estimate of 90% for the first 3 months of use. In 2019/20 uptake is assumed to be 34%, assuming that the treatment will be available for around 6 months of the year.
- People may be currently treated with ongoing chemotherapy.

- The dosage schedule for blinatumomab is taken from the marketing authorisation.
- The average treatment duration (1.86 cycles) from the pivotal phase II clinical trial referenced in the company submission, has been rounded to 2 cycles in the resource impact template.
- Administration costs for blinatumomab, relating to inpatient costs were taken from the 2019/20 National tariff: HRG codes SA24G (Acute Lymphoblastic Leukaemia with CC Score 5+), SA24H (Acute Lymphoblastic Leukaemia with CC Score 2-4) and SA24J (Acute Lymphoblastic Leukaemia with CC Score 0-1).
- The weighted average cost per elective inpatient stay is calculated using the national tariff codes for inpatient stays, weighted by the reference costs activity, taken from the 2017/18 reference costs.
- Daily home infusions for people remaining on-treatment days while not hospitalised, include a cost of providing a home infusion pump. The cost of the home infusion pump for a course of treatment is £215 (company submission).
- The home infusion pump needs refilling every 4 days requiring 13 appointments (6 times in first cycle and 7 times in second cycle). The number of appointments are taken from the company submission.
- The cost of each outpatient appointment is taken from the 2019/20 National tariff: HRG code SB15Z (Deliver Subsequent Elements of a Chemotherapy Cycle).

About this resource impact report

This resource impact report accompanies the NICE guidance on blinatumomab for acute lymphoblastic leukaemia for people with minimal residual disease activity in remission and should be read with it.