NICE National Institute for Health and Care Excellence

Resource impact summary report

Resource impact

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Resource impact summary report

This summary report is based on the NICE assumptions used in the resource impact template. Users can amend the 'Inputs and eligible population' and 'Unit costs' worksheets in the template to reflect local data and assumptions.

Recommendation

NICE has recommended blinatumomab with chemotherapy as an option to treat Philadelphia-chromosome-negative CD19-positive B-cell precursor acute lymphoblastic leukaemia (ALL) in adults, if:

- there is no minimal residual disease
- it is used at the start of consolidation treatment
- the company provides it according to the commercial arrangement.

This recommendation is not intended to affect treatment with blinatumomab with chemotherapy that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS healthcare professional consider it appropriate to stop.

Eligible population for blinatumomab

Table 1 shows the population who are eligible for blinatumomab and the number of people who are expected to have blinatumomab in each of the next 5 years, including forecast population growth.

Table 1 Population expected to be eligible for and have blinatumomab in England

Eligible population and uptake	People eligible for blinatumomab	Uptake for blinatumomab (%)	People having blinatumomab each year
Current practice without [technology]	67	0	0

Eligible population and uptake	People eligible for blinatumomab	Uptake for blinatumomab (%)	People having blinatumomab each year
Year 1	68	50	34
Year 2	69	90	62
Year 3	69	90	62
Year 4	70	90	63
Year 5	71	90	63

The following assumptions have been used to calculate the eligible population:

- 3,938 people aged over 15 years were diagnosed with lymphoid leukaemia in 2022 as per NHS Digital's Cancer Registration Statistics. We estimate that 3,907 of this group are adults.
- 280 of adults with lymphoid leukaemia have ALL
- 75% of adults with ALL have Philadelphia-chromosome-negative disease
- 75% of adults with Philadelphia-chromosome-negative disease have B-cell ALL
- 93% of those with Philadelphia-chromosome-negative B-cell ALL are CD19-positive
- 45.9% of those with Philadelphia-chromosome-negative CD19-positive B-cell precursor ALL are without minimal residual disease.

The uptake for blinatumomab is based on NHS England's estimate of a high uptake.

Treatment options for the eligible population

Blinatumomab will be used in addition to current standard care consolidation chemotherapy.

For more information about the treatments, such as dose and average treatment duration, see the capacity impact section below and the resource impact template.

Financial resource impact (cash items)

The company has a commercial arrangement. This makes blinatumomab available to the

NHS with a discount.

Users can input the confidential price of blinatumomab and amend other variables in the resource impact template.

The payment mechanism for the technology is determined by the responsible commissioner and depends on the technology being classified as high cost.

For further analysis or to calculate the financial impact of cash items, see the resource impact template.

Capacity impact

People would have blinatumomab plus chemotherapy as part of their consolidation treatment but would not have both treatments at the same time. The treatment schedule would be expected to include up to 4 cycles of blinatumomab and 4 cycles of chemotherapy (standard care). People would have each treatment in the following sequence: 2 cycles of blinatumomab, 3 cycles of chemotherapy, 1 cycle of blinatumomab, 1 cycle of chemotherapy and 1 cycle of blinatumomab. This means that the hospitalisations and appointments required with treatment with blinatumomab will be in addition to current standard care.

A single cycle of blinatumomab is 28 days of continuous infusion followed by a 14-day treatment-free interval. Hospitalisation is recommended for the first 3 days of the first cycle and the first 2 days of subsequent cycles of treatment. After the inpatient stay, treatment is delivered via a home infusion pump. The home infusion pump needs refilling at least every 4 days, requiring approximately 9 outpatient appointments per cycle.

The average treatment duration is assumed to be 3.09 cycles based on calculations from information in Luger et al. (2023).

Adverse event percentage rates are commercial in confidence and therefore have not been able to be included in the template. However, users can populate the adverse event percentage rates to assess the impact.

Table 2 shows the impact on capacity activity in each of the next 5 years.

Table 2 Capacity impact (activity) in England

Years	Inpatient hospital stays (number of nights)	Number of administrations for required bag changes
Current practice (without blinatumomab)	0	0
Year 1	244	944
Year 2	443	1,715
Year 3	447	1,732
Year 4	451	1,748
Year 5	456	1,765

For further analysis or to calculate the financial capacity impact from a commissioner (national) and provider (local) perspective, see the resource impact template.

Benefit of treatment

Table 3 Summary of relapse-free survival from table 13 of the summary of product characteristics for blinatumomab

	Blinatumomab arm	Standard care arm
Number of patients	112	112
Median follow-up time (years)	4.5	4.5
Relapse-free survival, 5-year Kaplan–Meier estimate (%) [95% CI]	77.0	60.5

Key information

Table 4 Key information

Time from publication to routine commissioning funding	90 days
Programme budgeting category	Cancers and tumours, 02I
Commissioner(s)	NHS England

Provider(s)	NHS hospital trusts
Pathway position	Consolidation treatment for Philadelphia-chromosome-negative CD19-positive B-cell precursor acute lymphoblastic leukaemia

About this resource impact summary report

This resource impact summary report accompanies the NICE technology appraisal guidance on blinatumomab with chemotherapy for consolidation treatment of Philadelphia-chromosome-negative CD19-positive minimal residual disease-negative B-cell precursor acute lymphoblastic leukaemia and should be read with it. See terms and conditions on the NICE website.

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