

**NATIONAL INSTITUTE FOR HEALTH AND CARE
EXCELLENCE**

Appraisal consultation document

**Inotuzumab ozogamicin for treating relapsed
or refractory B-cell acute lymphoblastic
leukaemia**

The Department of Health has asked the National Institute for Health and Care Excellence (NICE) to produce guidance on using inotuzumab ozogamicin in the NHS in England. The appraisal committee has considered the evidence submitted by the company and the views of non-company consultees and commentators, clinical experts and patient experts.

This document has been prepared for consultation with the consultees. It summarises the evidence and views that have been considered, and sets out the recommendations made by the committee. NICE invites comments from the consultees and commentators for this appraisal and the public. This document should be read along with the evidence (see the [committee papers](#)).

The appraisal committee is interested in receiving comments on the following:

- Has all of the relevant evidence been taken into account?
- Are the summaries of clinical and cost effectiveness reasonable interpretations of the evidence?
- Are the recommendations sound and a suitable basis for guidance to the NHS?
- Are there any aspects of the recommendations that need particular consideration to ensure we avoid unlawful discrimination against any group of people on the grounds of race, gender, disability, religion or belief, sexual orientation, age, gender reassignment, pregnancy and maternity?

Note that this document is not NICE's final guidance on this technology. The recommendations in section 1 may change after consultation.

After consultation:

- The appraisal committee will meet again to consider the evidence, this appraisal consultation document and comments from the consultees.
- At that meeting, the committee will also consider comments made by people who are not consultees.
- After considering these comments, the committee will prepare the final appraisal determination.
- Subject to any appeal by consultees, the final appraisal determination may be used as the basis for NICE's guidance on using inotuzumab ozogamicin in the NHS in England.

For further details, see NICE's [guide to the processes of technology appraisal](#).

The key dates for this appraisal are:

Closing date for comments: 4 July 2017

Second appraisal committee meeting: 12 July 2017

Details of membership of the appraisal committee are given in section 5.

1 Recommendations

- 1.1 Inotuzumab ozogamicin is not recommended for treating relapsed or refractory CD22-positive B-cell precursor acute lymphoblastic leukaemia in adults.
- 1.2 This recommendation is not intended to affect treatment with inotuzumab ozogamicin 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 clinician consider it appropriate to stop.

Why the committee made these recommendations

Current treatment for relapsed or refractory B-cell acute lymphoblastic leukaemia is usually fludarabine, cytarabine and granulocyte colony-stimulating factor (FLAG) based chemotherapy with idarubicin. Clinical trial evidence showed no survival benefit for people having inotuzumab ozogamicin compared with FLAG, high-dose cytarabine or cytarabine with mitoxantrone based chemotherapy. However, more people having inotuzumab ozogamicin were able to go on to have a stem cell transplant, compared with these treatments. The evidence on whether inotuzumab ozogamicin increases the overall length of time people live was uncertain. But increasing the number of people who can have a stem cell transplant may increase survival.

Inotuzumab ozogamicin met NICE's criteria to be considered a life-extending treatment at the end of life. The criteria are that life expectancy for people with the condition should normally be less than 24 months and that the treatment should normally extend life by more than 3 months.

The incremental cost effectiveness ratio (ICER) of inotuzumab ozogamicin compared with current treatment is more than £100,000 per quality-adjusted life year (QALY) gained; higher than acceptable for end-of-life

treatments and therefore it was not recommended for routine use in the NHS.

2 The technology

Inotuzumab ozogamicin (Besponsa, Pfizer)	
Marketing authorisation	The marketing authorisation had not been granted at the time of this appraisal consultation document release. However, the Committee for Medicinal Products for Human Use (CHMP) adopted a positive opinion, recommending the granting of a marketing authorisation for inotuzumab ozogamicin monotherapy for treatment of adults with relapsed or refractory CD22-positive B-cell precursor acute lymphoblastic leukaemia. Adult patients with Philadelphia chromosome positive relapsed or refractory B-cell precursor acute lymphoblastic leukaemia should have failed treatment with at least 1 tyrosine kinase inhibitor.
Recommended dose and schedule	Inotuzumab ozogamicin is given intravenously at a starting dose of 1.8 mg/m ² per cycle (0.8 mg/m ² on day 1 and 0.5 mg/m ² on days 8 and 15). Cycle 1 lasts for 21 days, and each subsequent cycle lasts for 28 days. Once a patient is in complete remission, or complete remission with incomplete haematological recovery, the dose on day 1 of each cycle is reduced to 0.5 mg/m ² for the duration of treatment.
Price	The price was submitted as commercial in confidence because it will not be confirmed by the Department of Health until the marketing authorisation has been granted.

3 Committee discussion

The appraisal committee (section 5) considered evidence submitted by Pfizer and a review of this submission by the evidence review group (ERG). See the [committee papers](#) for full details of the evidence.

New treatment option

People with B-cell acute lymphoblastic leukaemia would welcome a new treatment option

3.1 The clinical and patient experts noted that people with relapsed or refractory B-cell acute lymphoblastic leukaemia have limited treatment

options. The committee understood that current treatment can cause unpleasant side effects. The clinical expert explained that inotuzumab ozogamicin is innovative, reduces the need for hospitalisation, and has potential to make a significant and substantial effect on health-related benefits. The committee understood that although inotuzumab ozogamicin can cause a serious side-effect, veno-occlusive liver disease, it is generally well tolerated. The committee concluded that inotuzumab ozogamicin could be an important treatment option for people with relapsed or refractory B-cell acute lymphoblastic leukaemia.

Clinical management

FLAG-based therapy is the most appropriate comparator

3.2 The committee considered the most appropriate comparators for inotuzumab ozogamicin and its likely position in the treatment pathway. The patient and clinical experts stated that people with relapsed or refractory acute B-cell lymphoblastic leukaemia will have combination chemotherapy. For most people this would be fludarabine, cytarabine and granulocyte colony-stimulating factor (FLAG) with idarubicin (FLAG-IDA), which involves prolonged hospitalisation for treatment and is associated with debilitating side effects. In addition, patients with Philadelphia chromosome-positive disease can have FLAG-based therapy with tyrosine kinase inhibitors or tyrosine kinase inhibitors alone. The committee heard that clofarabine is sometimes used instead of FLAG-based therapy, but noted that its marketing authorisation is only for young adults (21 years or younger). It was aware that, in the key clinical trial (INO-VATE 1022), tyrosine kinase inhibitors or clofarabine were not used and that most patients in the standard care arm had FLAG-based therapy without idarubicin. The clinical expert stated that in clinical practice inotuzumab ozogamicin would be used for patients at first relapse before considering other salvage therapies, which are poorly tolerated. The committee concluded that FLAG-based therapy was the most appropriate comparator for this appraisal.

Clinical evidence

The clinical-effectiveness evidence is relevant to NHS practice

3.3 INO-VATE 1022 (n=326) was an open label phase III randomised controlled trial, comparing inotuzumab ozogamicin with the investigator's choice of 3 different standard care chemotherapy regimens (FLAG, high-dose cytarabine or cytarabine with mitoxantrone). The committee heard from the ERG that the trial population broadly represents patients in the NHS. INO-VATE 1022 included patients with relapsed or refractory acute lymphoblastic leukaemia having trial treatments as the first or second salvage therapy. Patients with Philadelphia chromosome-positive disease had to have had at least 1 prior tyrosine kinase inhibitor. The ERG noted that the trial only recruited adults fit for intensive treatments; a subgroup of inotuzumab ozogamicin's anticipated marketing authorisation population. Patients who would have best supportive care and patients expected to have 3 or more salvage therapies were not included in the trial. The committee was aware that high-dose cytarabine and cytarabine with mitoxantrone are currently not used in clinical practice, and that most patients in the trial had FLAG-based therapy. The committee concluded that the trial populations broadly correspond to those in NHS clinical practice, even though the anticipated marketing authorisation may be wider.

Clinical effectiveness

Inotuzumab ozogamicin increases the rate of stem cell transplant

3.4 The median overall survival in INO-VATE 1022 was 7.7 months for inotuzumab ozogamicin compared with 6.7 months for standard care in the intention-to-treat population. This difference was not statistically significant. The company's post-hoc restricted mean survival time analysis (cut short at 37.7 months) suggested median overall survival of 13.9 and 9.9 months for inotuzumab ozogamicin and standard care respectively (p=0.0023). The ERG noted that the results of the restricted mean survival

time analysis depended on when it was cut short and that the company results appeared to inflate overall survival. However, more patients had complete remission (CR) or complete remission with incomplete haematological recovery (CRi) with inotuzumab ozogamicin compared with standard care; 88 (80.7 %) compared with 32 (29.4 %) respectively ($p < 0.0001$; based on the analysis of results for the first 218 patients enrolled in the trial). Similarly, more patients were able to have haematopoietic stem cell transplant (HSCT) directly after inotuzumab ozogamicin compared with standard care; 45 (41%) and 12 (11%) respectively ($p < 0.001$; analysis of results for the first 218 patients). These results were confirmed by the intention-to-treat analyses (the results were submitted as academic in confidence). The company stated that in general, by increasing the rate of HSCT, inotuzumab ozogamicin can increase mean survival. The clinical expert and the ERG agreed that this is plausible. The committee noted that although inotuzumab ozogamicin's survival benefits are highly uncertain, it increased the response rate and the rate of HSCT. The committee therefore concluded that inotuzumab ozogamicin is clinically effective compared with standard care.

Adverse events

Inotuzumab ozogamicin has an acceptable safety profile

- 3.5 Inotuzumab ozogamicin is associated with potentially life-threatening veno-occlusive liver disease. The clinical expert noted that this mainly happens in people who have had conditioning alkylating treatments that are not used in the UK. The committee heard that continued experience with inotuzumab ozogamicin could minimise the risk of subsequent veno-occlusive disease. The committee acknowledged the risks associated with inotuzumab ozogamicin treatment and concluded that it has an acceptable safety profile.

The company's economic model

The model structure is appropriate for decision-making

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3.6 The company model consisted of 3 partitioned survival sub-models, with sub-states for progression-free and progressed disease and death:

- No CR or CRi and no HSCT
- CR or CRi and no HSCT
- HSCT and post-HSCT (patients could enter this state regardless of remission status).

The company's sensitivity analyses showed that the incremental cost-effectiveness ratio (ICER) was most sensitive to the cost of HSCT, the proportion of patients having blinatumomab and inotuzumab ozogamicin as subsequent induction treatments, and the utility of progressive disease. All clinical parameters in the model were derived from the safety population of INO-VATE 1022. The company explained that because some patients in the standard care arm were randomised but did not have treatment (and all patients randomised to inotuzumab ozogamicin had treatment), it considered the safety population to be more appropriate for modelling. This is because it excluded patients who did not have treatment; these patients would be classified as not having CR or CRi in the intention-to-treat population. The company considered that this approach was conservative. The ERG disagreed with the company, noting that there were other factors to be considered. The ERG stated that it was not clear whether using the safety population instead of the intention-to-treat population for the modelling would result in bias towards patients who had inotuzumab ozogamicin or standard care. The committee agreed that because it had not seen the intention-to-treat population's results it was not able to decide about the most appropriate population for modelling, but it concluded that the model structure was appropriate for decision-making.

Overall survival extrapolation in the economic model

The company's extrapolation in the HSCT and post-HSCT state is not appropriate for decision-making

3.7 In each sub-model population, the company applied parametric curves for overall and progression-free survival, the same type of curve being used in each case. The ERG noted that the company used a non-standard way of fitting parametric curves to the HSCT and non-HSCT data, which resulted in wide separation of the 2 survival curves. The ERG also explained that splitting the INO-VATE 1022 population and fitting multiple parametric curves is a very complex approach. The company's approach resulted in populations that are small and no longer support randomised comparisons. Specifically, a very small number of patients remained in the HSCT and post-HSCT state after 2 years. The committee noted that after having HSCT, people could be considered to act as a single group. The committee understood that approximately 95% of the quality-adjusted life year (QALY) gain was in the HSCT and post-HSCT state after the trial follow-up period (after data extrapolation). The clinical expert noted that veno-occlusive liver disease occurs after HSCT and causes some early mortality. The clinical expert further noted that the prognosis after HSCT depends on the pre-HSCT conditioning treatments and that fitter and younger patients would have a better prognosis. The committee was not persuaded that using treatment-specific overall survival curves in the HSCT and post HSCT state was justified. The committee did not agree with the company's overall survival extrapolation in the HSCT and post-HSCT state and therefore concluded that it was not appropriate for decision-making.

The ERG's exploratory analyses

The ERG's pooled overall survival with minimal residual disease status as a covariate in the HSCT and post HSCT state is appropriate for decision-making

3.8 The ERG presented 2 alternative analyses for survival extrapolation in the HSCT and post-HSCT state. The first scenario was a non-parametric approach to survival analysis using the observed INO-VATE 1022 data with the Kaplan–Meier data pooled across treatment groups. The second scenario was a fully-parametric model with pooled overall survival in the

HSCT and post-HSCT state and using minimal residual disease status as a covariate. This results in overall survival for patients having inotuzumab and standard care based on the proportions in each treatment group with negative minimal residual disease status. The committee heard from the clinical expert that minimal residual disease status is a known predictive biomarker and can be measured with great precision, but has not been shown to be a prognostic indicator for overall survival. However, the clinical expert noted that no minimal residual disease is associated with better outcomes after HSCT. The committee previously agreed that the company's overall-survival extrapolation in the HSCT and post-HSCT state is not suitable for decision-making (see section 3.7). It further agreed that the ERG's exploratory analyses have limitations, but considered the second scenario (pooled overall survival with minimal residual disease status as a covariate in the HSCT and post-HSCT state) to be clinically plausible and the most suitable analysis of those presented. The committee concluded that the parametric model with pooled overall survival with minimal residual disease status as a covariate fitted to the HSCT and post-HSCT state is appropriate for decision-making.

The economic model's cure point

A 4-fold increase in mortality 3 years after stem cell transplant is the preferred assumption

3.9 In the HSCT and post-HSCT state, the company model assumed that patients are cured after HSCT if they are still alive after 3 years. It assumed general population mortality estimates from 3 years after HSCT. The company's sensitivity analyses suggested that the ICERs were not sensitive to a different 'cure' point. Similarly, the ERG's sensitivity analyses applied to its parametric preferred analysis were relatively insensitive to the variation in cure point. However, the ERG disagreed with the company's assumption and stated that post-HSCT patients would continue to have increased mortality compared with the general population. The clinical expert's view was the same as the ERG's. The

ERG noted that although mortality improves 5 years after HSCT, it remains 4 to 9 times higher for at least 25 years after that (Martin et al. 2011).. The committee noted that it is difficult to determine the best time point in the model to assume a change in derivation of mortality post-HSCT. It agreed that the company's time point of 3 years is plausible for decision-making but that other time points may be also suitable. The committee also agreed with the ERG and the clinical expert that mortality remains increased after HSCT. The committee noted that assuming a 4-fold increase in mortality for patients from 3 years after HSCT is at the bottom end of the Martin et al. range and concluded that this is its preferred assumption.

Health-related quality of life in the economic model

Age-adjusted utilities and INO-VATE 1022 utilities pooled across treatment groups are preferred

3.10 The company's model used:

- INO-VATE 1022-based utilities for the no CR or CRi and no HSCT state and the CR or CRi and no HSCT state
- utilities based on Kurosawa et al. 2016 (time dependent) for the HSCT and post-HSCT state and
- a utility for progressed disease from Aristides et al. 2015.

The ERG noted that the utilities used in the model were not age-adjusted (and could exceed the utility in the general population) and that the utility value for progressed disease has a large impact on the estimated QALY gains. INO-VATE 1022 was an open trial and to minimise bias, the ERG suggested averaging utilities across the treatment groups for each (pre-progression) state. The clinical expert and committee agreed with the ERG that utility values decline with age and that utilities should be age-adjusted. The committee noted that the pooled utilities across the trial did not differentiate between adverse events from inotuzumab ozogamicin or standard care. It acknowledged that using pooled utilities had only a

marginal effect on the company's base-case ICER. The committee agreed that because of the possibility of bias for subjective end points, although conservative, the analysis with pooled utilities is more suitable for decision-making. The committee concluded that age-adjusted utilities and pooled INO-VATE 1022 utilities are the committee's preferred assumptions.

Cost of comparators in the economic model

Basing the cost of the comparators on the actual therapy taken in INO-VATE 1022 is preferred

3.11 INO-VATE 1022 compared inotuzumab ozogamicin with the investigator's choice of standard care (FLAG, high-dose cytarabine, or cytarabine with mitoxantrone). The company's model included the cost of FLAG and added the cost of idarubicin, and imatinib for patients with Philadelphia chromosome-positive disease, assuming no changes to the clinical effectiveness of the treatments. The ERG stated that including the costs of therapies when treatment benefits are excluded is inappropriate. The clinical expert and ERG both noted that ponatinib, rather than imatinib, is more likely to be used for Philadelphia chromosome-positive disease. The ERG's exploratory analysis matched the costs to the actual therapy taken in INO-VATE 1022 (FLAG, high-dose cytarabine, or cytarabine with mitoxantrone). The committee agreed that the additional cost of idarubicin and imatinib should not be included in the model. The committee concluded that the ERG's exploratory analysis with the cost of comparators based on the actual therapy taken in INO-VATE 1022 is its preferred assumption.

Cost of subsequent therapy in the economic model

The company's calculation of subsequent treatment costs is highly uncertain

3.12 The company model based the cost of subsequent therapies on the INO-VATE 1022 intention-to-treat population. It was not clear why the safety

population had not been used when all other clinical data were based on the safety population. The ERG highlighted the possibility of positive bias towards inotuzumab ozogamicin when the intention-to-treat population is used to calculate the cost of subsequent therapies because more expensive subsequent treatments were given to patients having standard care. In addition, it was unclear whether the benefits from post-induction therapies were adequately reflected in the safety population used to inform the economic model. The committee was aware that the company's sensitivity analyses showed that the ICER was sensitive to the proportion of patients having blinatumomab or inotuzumab as subsequent induction treatment (see section 3.6). Given the uncertainty around which patients were included in the model and the uncertainty in the cost of the subsequent therapies, the ERG's exploratory analysis replaced the cost of blinatumomab and inotuzumab ozogamicin as second-line induction therapies with the cost of chemotherapy. The committee recalled that no other results from the intention-to-treat population were presented (see section 3.6). It concluded that because of the uncertainty in the way the company calculated subsequent treatment costs, the ERG's exploratory analysis replacing the costs of blinatumomab and inotuzumab ozogamicin with the cost of chemotherapy is its preferred assumption.

Administration costs in the economic model

Administration costs based on INO-VATE 1022 and a weighted average NHS reference cost are preferred

3.13 The company's model assumed that administering inotuzumab ozogamicin would need 3 outpatient visits per cycle and 5 to 6 inpatient days for the standard care treatments based on the summary of product characteristics. The ERG noted that the company assumptions underestimated the cost, especially the cost of administering inotuzumab ozogamicin because no inpatient days were included. The clinical expert agreed with the ERG that the administration cost of inotuzumab ozogamicin was underestimated and also highlighted that patients having

standard care often need an extended stay in hospital. The ERG's exploratory analysis based the administration cost of inotuzumab ozogamicin on INO-VATE 1022 (including both inpatient and outpatient costs as recorded in the trial) and used a weighted average NHS reference cost for the standard care arm, resulting in an average length of stay of 9.5 days. The committee concluded that the ERG's analysis with the administration cost of inotuzumab ozogamicin based on INO-VATE 1022 and a weighted average NHS reference cost for the standard care arm is its preferred assumption.

Costs and benefits discount rate in the economic model

A 3.5% discount rate for costs and benefits is appropriate

3.14 The company applied a 1.5% discount rate to costs and QALYs based on assuming that HSCT restores normal life expectancy for patients. Results with a 3.5% discount rate were presented as sensitivity analyses. The ERG did not agree with the company's 1.5% discount rate because mortality rates remain increased after HSCT. The committee discussed the [methods guide](#) and precedents for using non-reference case discount rates. It did not consider these relevant to the data and outcomes for the proposed use of inotuzumab ozogamicin. The committee recalled the median and mean survival rates from the INO-VATE 1022 clinical trial and its conclusion that a 4-fold increase in mortality for patients 3 years after HSCT and beyond is the committee's preferred assumption (see section 3.9). It concluded that a 3.5% discount rate for costs and QALYs is the appropriate discount rate for this appraisal.

The company's base-case economic analysis

The probabilistic ICERs are more appropriate for decision-making

3.15 The company's deterministic ICERs were £40,013 and £55,869 per QALY gained using the 1.5% and 3.5% discount rates respectively for inotuzumab ozogamicin compared with standard care. The probabilistic

ICERs were £48,459 and £67,575 per QALY gained using the 1.5% and 3.5% discount rates respectively for inotuzumab ozogamicin compared with standard care. The ERG noted the large difference between the probabilistic and deterministic results, which suggested that the company's model is non-linear. The ERG highlighted that when the model is non-linear, the deterministic ICER can be biased and that the probabilistic ICER is the more appropriate estimate. The committee agreed and concluded that the probabilistic ICERs are more appropriate for decision-making.

The ERG's economic analysis

The ERG's analysis resulted in a deterministic ICER of £114,078 per QALY gained

3.16 The ERG's parametric model with pooled overall survival and minimal residual disease status as a covariate fitted to the HSCT and post-HSCT state (see section 3.8) was considered to be appropriate for decision-making, with the following committee preferred assumptions:

- a 4-fold increase in mortality compared with the general population for patients 3 years post-HSCT and beyond (see section 3.9)
- age-adjusted utilities, and pooled INO-VATE 1022 utilities (see section 3.10)
- basing the cost of comparators on the actual therapy taken in INO-VATE 1022 (see section 3.11)
- replacing the costs of the subsequent therapies, blinatumomab and inotuzumab ozogamicin, with the cost of chemotherapy (see section 3.12)
- basing the administration cost of inotuzumab ozogamicin on INO-VATE 1022 and a weighted average NHS reference cost for standard care (see section 3.13)
- a discount rate of 3.5% for costs and QALYs (see section 3.14).

The ERG's analysis including all of the above assumptions resulted in a deterministic ICER of £114,078 per QALY gained.

The most plausible cost effectiveness result

Above the range normally considered a cost-effective use of NHS resources

3.17 The committee recalled its earlier conclusion that probabilistic ICERs are more appropriate for decision-making in this appraisal (see section 3.15). The committee was aware that the ERG's analysis had fewer issues with non-linearity than the company's base case and that the ERG's probabilistic ICER would be approximately £2,000 per QALY gained more than the deterministic ICER of £114,078 per QALY gained. Based on the company's and ERG's ICERs (see sections 3.15 and 3.16 respectively), the committee preferred assumptions (summarised in section 3.16) and taking into consideration both the deterministic and probabilistic ICERs, the committee concluded that the most plausible ICER for inotuzumab ozogamicin compared with standard care would be more than £100,000 per QALY gained.

End of life

Inotuzumab ozogamicin meets NICE's end-of-life criteria

3.18 The committee considered the advice about life-extending treatments for people with a short life expectancy in NICE's [Cancer Drugs Fund technology appraisal process and methods](#).

- The committee discussed whether life expectancy without inotuzumab ozogamicin would be less than 24 months. It noted that median overall survival was 6.7 months for standard care in INO-VATE 1022 and concluded that the short life expectancy criterion was met.
- The committee discussed whether a survival benefit of over 3 months can be expected for inotuzumab ozogamicin compared with standard care. It recalled its earlier conclusion about survival benefit with inotuzumab ozogamicin (see section 3.4) and agreed that although the

survival benefits of inotuzumab ozogamicin are highly uncertain, it is likely that by increasing the rate of HSCT, inotuzumab ozogamicin will increase the mean survival for people with relapsed or refractory B-cell acute lymphoblastic leukaemia by more than 3 months. The committee concluded that the extension-to-life criterion was met.

The committee concluded that inotuzumab ozogamicin met the life expectancy and life extension criteria to be considered a life-extending, end-of-life treatment.

Innovation

Inotuzumab ozogamicin's benefits are captured in the cost-effectiveness analysis

3.19 The patient and clinical experts explained that there is significant unmet need for people with relapsed or refractory acute lymphoblastic leukaemia because of the ineffective and toxic chemotherapy regimens currently available. The committee noted that the company considers inotuzumab ozogamicin to be innovative, reducing the need for hospitalisation and a major change in treating a rare illness. The committee concluded that inotuzumab ozogamicin would be beneficial for patients, but it had not been presented with evidence of any additional benefits that were not captured in the measurement of QALYs.

Conclusion

Inotuzumab ozogamicin is not recommended for routine use

3.20 The committee concluded that the ICER for inotuzumab ozogamicin compared with standard care is higher than £100,000 per QALY gained which was too high to be considered a cost-effective use of NHS resources, for a life-extending end of life treatment. It therefore did not recommend inotuzumab ozogamicin for routine use in the NHS for people with relapsed or refractory B-cell acute lymphoblastic leukaemia.

4 Proposed date for review of guidance

- 4.1 NICE proposes that the guidance on this technology is considered for review by the guidance executive 3 years after publication of the guidance. NICE welcomes comment on this proposed date. The guidance executive will decide whether the technology should be reviewed based on information gathered by NICE, and in consultation with consultees and commentators.

Andrew Stevens

Chair, appraisal committee C

June 2017

5 Appraisal committee members and NICE project team

Appraisal committee members

The 4 technology appraisal committees are standing advisory committees of NICE. This topic was considered by [committee C](#).

Committee members are asked to declare any interests in the technology to be appraised. If it is considered there is a conflict of interest, the member is excluded from participating further in that appraisal.

The [minutes](#) of each appraisal committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

NICE project team

Each technology appraisal is assigned to a team consisting of 1 or more health technology analysts (who act as technical leads for the appraisal), a technical adviser and a project manager.

Marcela Haasova

Technical Lead

Sally Doss

Technical Adviser

Stephanie Yates

Project Manager

ISBN: [to be added at publication]