NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Appraisal consultation document

Axicabtagene ciloleucel for treating relapsed or refractory diffuse large B-cell lymphoma after 1 systemic treatment

The Department of Health and Social Care has asked the National Institute for Health and Care Excellence (NICE) to produce guidance on using axicabtagene ciloleucel 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, sex, disability, religion or belief, sexual orientation, age, gender reassignment, pregnancy and maternity?

Issue date: November 2022

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 evaluation 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 document.
- Subject to any appeal by consultees, the final appraisal document may be used as the basis for NICE's guidance on using axicabtagene ciloleucel 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: 14 December 2022
- Second appraisal committee meeting: TBC
- Details of membership of the appraisal committee are given in section 4.

1 Recommendations

1.1 Axicabtagene ciloleucel is not recommended, within its anticipated marketing authorisation, for treating diffuse large B-cell lymphoma that has relapsed within 12 months after first-line chemoimmunotherapy, or is refractory to first-line chemoimmunotherapy, in adults.

1.2 This recommendation is not intended to affect treatment with axicabtagene ciloleucel 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

Standard care for relapsed or refractory diffuse large B-cell lymphoma after 1 systemic treatment is chemotherapy followed by high-dose chemotherapy and autologous stem cell transplant. Axicabtagene ciloleucel is a chimeric antigen receptor (CAR) T-cell therapy. It uses the person's own immune system cells (T-cells), which have been modified to attach to and kill cancer cells. It would be used as an alternative to chemotherapy followed by high-dose chemotherapy and autologous stem cell transplant.

Clinical trial evidence suggests that, when autologous stem cell transplant is suitable, axicabtagene ciloleucel improves how long people live compared with standard care. But it is uncertain by how much because the trial is not yet complete. Some people in the trial who had standard care went on to have a CAR T-cell therapy. This is not standard care in the NHS, so adjusting the data to reflect this also adds uncertainty.

Axicabtagene ciloleucel meets NICE's criteria to be considered a life-extending treatment at the end of life. But even taking this into account, all the cost-effectiveness estimates are above the range NICE normally considers an acceptable

use of NHS resources. So, axicabtagene ciloleucel is not recommended for routine use in the NHS.

Axicabtagene ciloleucel has not been shown to have the potential to be cost effective. So, axicabtagene ciloleucel is not recommended for use in the Cancer Drugs Fund.

2 Information about axicabtagene ciloleucel

Anticipated marketing authorisation indication

2.1 Axicabtagene ciloleucel (Yescarta, Kite) does not have a marketing authorisation in Great Britain yet. It received a marketing authorisation by the European Commission for: 'the treatment of adult patients with diffuse large B-cell lymphoma (DLBCL) and high-grade B-cell lymphoma (HGBL) that relapses within 12 months from completion of, or are refractory to, first-line chemoimmunotherapy'.

Dosage in the marketing authorisation

2.2 The dosage schedule will be available in the summary of product characteristics for axicabtagene ciloleucel.

Price

2.3 The list price of axicabtagene ciloleucel for a single infusion including shipping, engineering and generation of CAR T-cells is £280,451 (company submission).

2.4 The company has a commercial arrangement (simple discount patient access scheme). This makes axicabtagene ciloleucel available to the NHS with a discount and it would have also applied to this indication if the technology had been recommended. 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.

3 Committee discussion

The appraisal committee considered evidence submitted by Kite, a review of this submission by the evidence review group (ERG), and responses from stakeholders. See the committee papers for full details of the evidence.

Clinical need and treatment pathway

Disease burden

3.1 Diffuse large B-cell lymphoma (DLBCL) is an aggressive type of cancer of the lymphatic system. People with DLBCL can experience swollen lymph nodes, bone pain, night sweats, fever, weight loss and itching. Patient experts commented that in addition to physical symptoms, many people also experience significant mental health challenges. They explained that disease relapse can be particularly difficult both physically and emotionally. Patient experts also commented that relapsed or refractory DLBCL has a large impact on daily life. They explained that people with DLBCL may spend several weeks in hospital, which impacts their ability to work and spend time with friends and family. They also commented that many people need a carer, which is often a family member, in the weeks after they have axicabtagene ciloleucel. If people do not have a carer, they may stay in hospital for the first 28 days after they have axicabtagene ciloleucel. The committee recognised that relapsed or refractory DLBCL after 1 systemic treatment has a large disease burden.

Treatment options

3.2 Clinical experts said that in current practice, people with DLBCL are usually offered rituximab, cyclophosphamide, doxorubicin, vincristine and prednisolone (R-CHOP) as initial treatment. For DLBCL that is relapsed or refractory to R-CHOP, clinicians offer salvage chemotherapy. If disease responds, clinicians then offer high-dose chemotherapy and autologous stem cell transplant, for those who are able to have one. Transplant suitability is based on the person's tolerance of intensive treatment and is

usually only offered to people aged under 70. Patient experts commented on the side effects of intensive chemotherapy, including sickness, diarrhoea, hair loss and neutropenia. Patient and clinical experts also said there is a need for treatments that could improve survival for people with relapsed or refractory DLBCL. The committee concluded that patients and clinicians would welcome a new treatment option.

Proposed positioning

3.3 The company proposed axicabtagene ciloleucel for a narrower population than its anticipated marketing authorisation. It focused on adults with DLBCL that is primary refractory or early relapsed within 12 months of treatment, and who are intended for autologous stem cell transplant. This narrowed the population to those who can have an autologous stem cell transplant. This was to align with the key clinical trial, ZUMA-7 (see section 3.5). Clinical experts commented that people who cannot have an autologous stem cell transplant have worse outcomes. They explained that it would be beneficial to have an additional treatment option for these people. They also added that there were effectively 3 groups of people: those who would tolerate either autologous stem cell transplant or axicabtagene ciloleucel, those who would not tolerate transplant but could tolerate axicabtagene ciloleucel and those who would not tolerate either. They were mindful that people who were not fit enough to have an autologous stem cell transplant but who could tolerate axicabtagene ciloleucel would not be offered treatment based on the company's proposed positioning. But the clinical experts also highlighted that there was no evidence for axicabtagene ciloleucel in this population because they were not included in ZUMA-7. So the committee agreed it was appropriate to position axicabtagene ciloleucel for the narrower population.

Comparator

3.4 The committee recalled that relapsed or refractory DLBCL after 1 systemic treatment is usually treated with salvage chemotherapy, high-dose chemotherapy and autologous stem cell transplant (from now, called standard care). The company used clinical expert opinion to estimate the chemotherapy regimens in standard care as 50% R-ICE (rituximab, ifosfamide, carboplatin and etoposide) and 50% R-GDP (rituximab, gemcitabine, dexamethasone, and cisplatin). The committee concluded that standard care including salvage chemotherapy, high-dose chemotherapy and autologous stem cell transplant was the relevant comparator.

Clinical evidence

ZUMA-7 trial

3.5 The company provided evidence for axicabtagene ciloleucel compared with standard care from ZUMA-7, which is ongoing. This is a phase 3, randomised, open-label trial in adults with primary refractory or early relapse (within 12 months of first-line treatment) DLBCL after 1 systemic treatment who are intended for transplant. Standard care was defined as platinum-based chemoimmunotherapy, and if the condition responded, then high-dose chemotherapy and autologous stem cell transplantation. The primary end point was event-free survival defined as time from randomisation to the earliest date of disease progression, start of new lymphoma treatment, death, or best disease response of stable disease, which is the best response for DLBCL that is not growing or shrinking. One clinical expert commented that event-free survival was not an appropriate primary end point for a trial investigating second-line treatment. They said that people who went on to have third-line axicabtagene ciloleucel would not be captured in event-free survival. But the company confirmed that starting a new lymphoma treatment included off-protocol subsequent CAR T-cell therapy, so it was a component of

event-free survival. Another clinical expert noted that event-free survival is increasingly used as a primary end point because it effectively measures the impact of the intervention. ZUMA-7 had 1 to 1 randomisation and included a total of 359 people. The median age of participants was 59 and the overall trial group was 66% male. About three quarters of people in the trial (74%) had primary refractory disease and about one quarter (26%) had disease relapse within 12 months of first-line treatment at study entry. Crossover between treatment arms was not allowed. But if a person's disease did not respond to standard care, then they could have subsequent CAR T-cell therapy off protocol. In the standard care arm, 56% of people had subsequent CAR T-cell therapy. The clinical experts also noted that chemotherapy bridging, which is chemotherapy offered between T-cell collection and reinfusion, was not allowed in ZUMA-7 but is commonly used in NHS practice. They commented that this might have made clinicians less likely to enrol people with fast-progressing disease in the trial. They explained that it was difficult to estimate the impact this would have on the comparative effectiveness. The committee acknowledged the experts' concerns but concluded that ZUMA-7 provided the best available evidence for axicabtagene ciloleucel compared with standard care.

Adverse events

3.6 Clinical and patient experts explained that current standard care can be associated with adverse events, but the types of adverse events and how they are treated is different for axicabtagene ciloleucel. Two of the key adverse events associated with axicabtagene ciloleucel are cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS). In ZUMA-7, 92% of people who had axicabtagene ciloleucel had CRS of any grade and 6% had CRS of grade 3 or higher. Also in the trial, more participants who had axicabtagene ciloleucel had a serious neurological event compared with those who had standard care. The patient expert said that during their treatment with

axicabtagene ciloleucel they experienced severely reduced mental abilities. The nursing expert also commented that neurological adverse events can develop within minutes. They explained that this is much faster than typical adverse events associated with standard care. They added that because of the risk of rapid deterioration, people who have had CAR T-cell therapy need more monitoring, and potentially 1 to 1 nursing even if they are not in intensive care. The committee understood the potential adverse events associated with axicabtagene ciloleucel and considered the implications for the cost of managing these in the NHS (see section 3.11).

Economic model

Model structure

3.7 The company provided a partitioned survival model to compare the cost effectiveness of axicabtagene ciloleucel with standard care. The model had 3 health states: event-free, post-event and death. Health state occupancy was determined by mixture cure models fitted to ZUMA-7 overall survival, event-free survival and time to next treatment curves. The model structure was similar to those used in previous CAR T-cell appraisals. The company justified using event-free survival, instead of progression free survival, because it was the primary end point in ZUMA-7 and is clinically relevant given the curative intent of treatment. The model assumed that people who were alive and event free at 5 years in both the axicabtagene ciloleucel and standard care arms had a quality of life equal to the general population because they were considered effectively cured. The ERG commented that, on balance, it was satisfied that the modelling approach was appropriate but that the model had a limited capacity to consider more than 1 post-event round of treatment. The committee concluded the model was appropriate for decision making.

Axicabtagene ciloleucel overall survival extrapolation

3.8 The company used the most recent data-cut from ZUMA-7 to inform axicabtagene ciloleucel overall survival. This provided data for approximately 2 years of follow up that the company then fitted a range of mixture cure models to. Its preferred model was the generalised gamma distribution because it had good statistical fit and was validated by clinical experts. The ERG noted that all curves fit relatively well to the trial data, but the log-logistic curve had marginally better statistical fit. Because the trial data is immature and the long-term survival for axicabtagene ciloleucel is uncertain, the ERG preferred the log-logistic curve. This provided slightly more conservative overall survival extrapolations. The committee concluded that both the generalised gamma and log-logistic curves appeared plausible and agreed that the log-logistic model was appropriate given the uncertainty.

Standard care overall survival

3.9 The company noted that third-line CAR T-cell therapy is only available on the Cancer Drugs Fund (CDF) in England. NICE does not consider technologies that have been recommended for use in the CDF to be established practice, which means they are not considered relevant subsequent treatments for the purpose of NICE appraisals. In ZUMA-7, 56% of people in the standard care group had third-line CAR T-cell therapy (see section 3.5). The company explored adjusting the standard care overall survival to remove the benefit of subsequent CAR T-cell therapy, which the committee agreed was necessary. Its base case treatment-switching adjustment method was the rank preserving structural failure time (RPSFT) model with full re-censoring of data for all people having standard care. This analysis gave a hazard ratio, which the company applied to the axicabtagene ciloleucel overall survival curve. The company also explored RPSFT models with different types of censoring and the inverse probability of censoring weighting method. During technical engagement, the company updated the survival analysis to

recategorise 4 people in the standard care arm whose data was originally censored as lost to follow up but were confirmed to have died during the study period. This reanalysis was originally requested by the US Food and Drug Administration. The updated overall survival hazard ratio for using the RPSFT model with full re-censoring was 0.42.

Crossover analysis clinical plausibility

3.10 The company compared the updated survival estimates from the different treatment-switching adjustment methods with those from SCHOLAR-1 and the comparator arm of the ORCHARRD study. SCHOLAR-1 was a retrospective evaluation of outcomes in people with refractory DLBCL and included both observational and randomised controlled trial data. ORCHARRD was a study of ofatumumab compared with rituximab, dexamethasone, cytarabine and cisplatin (R-DHAP) salvage treatment, followed by autologous stem cell transplant. Clinical experts advised the company that overall survival for people having standard care would likely be above the SCHOLAR-1 estimates but below the ORCHARRD estimates. The company noted that the only adjustment method that met the clinician's expectations, was the RPSFT model with full re-censoring. The ERG agreed that the company's preferred adjustment was the most appropriate method but cautioned that there was remaining uncertainty about standard care overall survival. The committee questioned whether it was appropriate to apply a hazard ratio to the axicabtagene ciloleucel overall survival mixture cure model. It was concerned that standard care overall survival was disadvantaged after 5 years. Clinical expectation is that if people are alive and event free at 5 years, regardless of the treatment they had, they are effectively cured. But, applying a hazard ratio implies that the standard care survival would be proportional to axicabtagene ciloleucel even after the cure point, which may not reflect clinical expectation. The committee concluded that the company's standard care overall survival extrapolation was acceptable, but there was

remaining uncertainty, which could be favourable to axicabtagene ciloleucel.

CAR T-cell administration costs

3.11 The company costed individual components of administering axicabtagene ciloleucel in the NHS separately. It calculated the administration cost to be around £28,000. The company included the costs of

- hospital administration
- leukapheresis
- conditioning chemotherapy (medicine and administration)
- bridging therapy (medicine and administration)
- treating adverse events.

The company considered each cost category individually, and combined them as its estimate of the cost of administering axicabtagene ciloleucel in the NHS. The ERG commented that the company's approach likely underestimated the true cost because it may not capture the costs of staff and hotels. NHS England established a single tariff to capture the cost of delivering CAR T-cell therapy in the NHS. The tariff was developed after NICE recommended tisagenlecleucel, the first CAR T-cell therapy to be appraised by NICE, for use in the Cancer Drugs Fund in December 2018. NHS England stated that the tariff includes all costs of care from when a person is identified for CAR T-cell therapy to 100 days after infusion. It does not include acquisition costs of axicabtagene ciloleucel or other costs that are reimbursed separately. The tariff is £96,016. The tariff is subject to ongoing review and will be updated periodically. For use in NICE appraisals, NHS England provided a revised administration cost of £65,415. NHS England explained it worked with an NHS trust to provide a reasonable distribution of the total tariff costs across the different phases of

treatment. The revised cost also had an adjusted length of stay and adjusted proportion of people who have care in an ambulatory setting and outside hospital. It also removed general business costs that are legitimate costs incurred within the NHS, but may not be directly relevant to the NICE appraisal, such as corporate board costs. NHS England explained that there is not a Healthcare Resource Group (HRG) that includes CAR T-cell therapies. It also commented that a key difference between its tariff and the company's costs is the number of staff who look after people who have had CAR T-cell therapy. Clinical experts noted that much more staffing is required for CAR T-cell therapy units than for the general lymphoma services, which the current HRGs are based on. The company commented that is it not appropriate to use the tariff in the modelling because it is a mechanism for NHS England to fund hospitals for providing CAR T-cell therapy and is not designed for technology evaluation. It was concerned that the evidence underlying the tariff has not been transparently shared and that it may include costs that are not relevant. NHS England clarified that the tariff does not include a financial incentive to encourage trusts to deliver CAR T-cell therapy. The ERG was also concerned about the methods used by NHS England to derive the tariff. It was unclear how individual trusts estimated expenditure and how this corresponded to the amount of resource used. The ERG was also unclear why overhead business costs were removed from the tariff, and why they were 30%. The committee was concerned that the company's costs underestimated the true cost of delivering axicabtagene ciloleucel. It noted that the company's cost of delivering axicabtagene ciloleucel (about £28,000) was less than the cost the company used for autologous stem cell transplant. The committee recalled that people who have treatment with axicabtagene ciloleucel need more monitoring than people who have autologous stem cell transplants (see section 3.6). So it considered that the company's costs lacked face validity. The committee also considered the ERGs exploratory scenario analysis in which the

hospital admission costs from the company's model were increased by a factor of 3. This aimed to account for increasing staffing levels more in line with expectations of delivering CAR T-cell therapy. The committee noted that this scenario increased the total costs of delivering axicabtagene ciloleucel to around £60,000. The committee noted that it was difficult to compare the company's cost with the NHS England tariff because they were reported differently. The committee noted that in the absence of an HRG for axicabtagene ciloleucel, the NHS England tariff was the best available source for the costs of delivering CAR T-cell therapy. The committee was aware that the £65,415 cost provided by NHS England could include double-counting and after deliberation decided to reduce the value, to acknowledge this. The committee acknowledged that any reduction would be subjective but concluded that a total cost of £60,000 per person was a reasonable estimate because it was also similar to the ERG scenario which assumed increased staffing, which was the main element not captured in the HRGs.

Autologous stem cell transplant costs

3.12 As part of current standard care for relapsed or refractory DLBCL, people are offered autologous stem cell transplant. The company included a cost of £37,736 for this procedure. This was the value used in NICE's Guideline on non-Hodgkin's lymphoma: diagnosis and management inflated to 2020 to 2021 values. The ERG noted this cost was not transparent and preferred to use the HRG for 'Peripheral Blood Stem Cell Transplant, Autologous, 19 years and over' inflated to £17,181. The company was concerned that the ERG's approach did not include follow-up costs. It cited a study by Wang et al. from 2016 of people with DLBCL in the Haematological Malignancy Research Network, which reported the cost of autologous stem cell transplants to be about £42,000. The NHS England Cancer Drugs Fund Clinical Lead commented that the company's estimate appeared more consistent with the cost of the procedure in the

NHS than the ERG's. The committee concluded that there was some uncertainty about the true cost of autologous stem cell transplants in the NHS, but that the company's estimate was more appropriate.

Retreatment costs

3.13 The company noted that a small proportion of people in ZUMA-7 were retreated with axicabtagene ciloleucel (the company considers the value to be confidential, so it cannot be reported here). It explained that retreatment was not part of the marketing authorisation and would not occur in clinical practice, so it did not include those costs. It also added that the clinical benefit for people who had been retreated was small and unlikely to impact the cost effectiveness estimates. The ERG was concerned that excluding retreatment costs would mean that modelled treatment benefit and modelled costs were not aligned. It preferred to include retreatment costs because there is no robust way of removing treatment benefit. The committee noted the benefit of retreatment was uncertain. NHS England confirmed that it would not commission retreatment. The committee agreed with the ERG that it was important to align modelled costs and benefits. So it concluded that it was appropriate to include axicabtagene ciloleucel retreatment costs.

End of life

Life-extending treatment criteria

3.14 The committee considered the advice about life-extending treatments for people with a short life expectancy in NICE's guide to the methods of technology appraisal 2013. The company proposed that axicabtagene ciloleucel met the criteria for life-extending treatments for people with a short life expectancy (normally less than 24 months). The committee noted that using its preferred RPSFT model with full re-censoring adjustment, the mean life years for the standard care arm was more than 24 months, but the median overall survival was less than 24 months (the

company considers the exact values to be confidential, so they cannot be reported here). The model also predicted that less than one third of people in the standard care arm would be alive at 24 months (the company considers the exact value to be confidential, so it cannot be reported here). The clinical experts agreed that they would expect 20% to 30% of people in this population to be alive at 24 months with current standard care. However, this was difficult to assess because CAR T-cell therapy is available in the CDF which has improved outcomes. The committee recalled that CAR T-cell therapy is not routinely commissioned so could not be considered part of standard care (see section 3.9). The committee agreed that although there was some uncertainty, the short life expectancy criterion was met. It then considered if axicabtagene ciloleucel was associated with a gain in overall survival of at least 3 months. When using its preferred assumptions, the model predicted axicabtagene ciloleucel would extend life by more than 3 months (the company considers the exact value to be confidential, so it cannot be reported here). The committee concluded that axicabtagene ciloleucel met both of NICE's criteria to be considered a life-extending treatment at the end of life.

Cost-effectiveness estimate

Preferred ICER

3.15 The committee considered the deterministic incremental cost-effectiveness ratios (ICERs) for axicabtagene ciloleucel compared with standard care. Because of confidential commercial arrangements for comparator treatments, the exact cost-effectiveness results cannot be reported here. The committee noted that the company's base case and all the scenarios presented were above the range NICE normally considers a cost-effective use of NHS resources for end-of-life treatments. The committee's preferred cost-effectiveness estimate included a combination

of assumptions from the company's and ERG's base cases and higher administration costs. The committee preferred:

- a log-logistic mixture cure model for axicabtagene ciloleucel overall survival (see section 3.8)
- CAR T-cell delivery costs of £60,000 (see section 3.11)
- autologous stem cell transplant costs from NICE's Guideline on Non-Hodgkin's lymphoma: diagnosis and management (see section 3.12)
- including retreatment costs for axicabtagene ciloleucel (see section 3.13)
- post-event treatment distributions from ZUMA-7
- post-event utility values from ZUMA-1 (single arm study of axicabtagene ciloleucel for relapsed or refractory DLBCL; pre-progression values) rather than JULIET (single arm study of tisagenlecleucel for relapsed or refractory DLBCL)
- including the cost of an additional consultation for neurological adverse events.

Using these assumptions, the committee's most plausible ICER was significantly above £50,000 per quality-adjusted life year (QALY) gained.

Cancer Drugs Fund

Criteria for Cancer Drugs Fund

3.16 Having concluded that axicabtagene ciloleucel could not be recommended for routine use, the committee then considered if it could be recommended for treating DLBCL after 1 systemic treatment within the Cancer Drugs Fund. The committee discussed the arrangements for the Cancer Drugs Fund agreed by NICE and NHS England in 2016, noting NICE's Cancer Drugs Fund methods guide (addendum). The company acknowledged that there is uncertainty in the clinical evidence for using axicabtagene ciloleucel in this position, and that it could be a

candidate for the Cancer Drugs Fund. The committee noted that ZUMA-7 is ongoing and further follow-up may resolve some uncertainty around long term survival for people who have axicabtagene ciloleucel and who have standard care. But the committee recalled that all the cost-effectiveness estimates were above the range NICE normally considers a cost-effective use of NHS resources. It agreed that axicabtagene ciloleucel had not shown the plausible potential to be cost effective at the currently available price. So the committee concluded that axicabtagene ciloleucel did not meet the criteria to be recommended in the Cancer Drugs Fund.

Other factors

Innovation

3.17 The company commented that axicabtagene ciloleucel is a personalised, transformative and innovative treatment. It also noted that there may be potential benefits of axicabtagene ciloleucel treatment that were not fully captured in the QALY calculations. It stated that the true benefit of cure was likely underestimated. It also stated that there may be benefits associated with axicabtagene ciloleucel because it is a single infusion, compared with multiple cycles of chemotherapy followed by high-dose treatment and autologous stem cell transplant. The committee recognised these may be benefits to people but concluded that it had not seen evidence of these benefits over those already included in the QALY calculations.

Equality

3.18 The committee recalled that current standard care includes autologous stem cell transplant. The company and clinical experts explained that people 70 years and older are not usually offered stem cell transplant. The company explained that because axicabtagene ciloleucel would not have an age restriction, it could help reduce the age inequality. Age

is a protected characteristic under the Equality Act 2010. The committee was aware that NICE makes recommendations for technologies within their marketing authorisations. However, the committee recalled that the company positioned axicabtagene ciloleucel only for people for whom autologous stem cell transplant is suitable, which is usually people under age 70. The committee considered the evidence that had been submitted. It noted that it had not seen evidence for axicabtagene ciloleucel for treating relapsed or refractory DLBCL in people for whom autologous stem cell transplant is not suitable, who are usually older and less well. The committee was aware of the need for new treatments in this population and was disappointed the company chose to position axicabtagene ciloleucel for the transplant eligible population only. A research organisation also commented that there is a geographic inequality because CAR T-cell therapy is only provided at 10 designated centres. The clinical experts explained that it is planned that CAR T-cell therapy is going to be delivered at more centres across the country, which may mitigate this issue. The committee noted these concerns but concluded that its recommendation for axicabtagene ciloleucel would not adversely affect people protected by the equality legislation.

Steve O'Brien
Chair, appraisal committee
November 2022

4 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.

Catie Parker
Technical lead

Alex Filby
Technical adviser

Louise Jafferally
Project manager

ISBN: [to be added at publication]