

Application or referral for other medical service or health technology

Application ID:

HPP200075

Application title:

Axicabtagene ciloleucel (YESCARTA®) for relapsed or refractory large B-cell lymphoma

Submitting organisation:

GILEAD SCIENCES PTY LIMITED

Submitting organisation ABN:

71072611708

Application description

Succinct description of the medical condition/s:

Large B-cell lymphoma is a type of blood cancer that arises from lymphocytes (a type of white blood cell), which are part of the body's immune system. Large B-cell lymphoma is a form of non-Hodgkin's lymphoma, and patients typically present with swelling of the lymph nodes or disease in other parts of the body such as the stomach, bowel, skin and lungs, which can cause swelling and discomfort. In addition, patients can have fever, night sweats and unexplained weight loss.

Succinct description of the service or health technology:

Axicabtagene ciloleucel is a CAR T-cell therapy that is produced using a patient's own T-cells (another form of immune cell), making the product unique to each patient. For CAR-T therapy, a patient's T-cells are collected and genetically modified in a lab to express an anti-CD19 chimeric antigen receptor (CAR) that targets the lymphoma B-cells. The modified T-cells are multiplied and then infused back into the patient where they target and kill the cancerous lymphoma B-cells, thereby treating the lymphoma.

CAR-T cell therapies are a relatively new type of treatment that are used when patients with some types of cancers (currently blood cancers such as large B-cell lymphoma), don't respond to (refractory), or relapse (come back) after, other types of treatment, such as chemotherapy. Second-line therapy means that axicabtagene ciloleucel would be a second choice after another therapy, likely chemoimmunotherapy.

Application contact details

Are you applying on behalf of an organisation, or as an individual?

Organisation

Is the applicant organisation the organisation you are representing in the HPP today?

Yes

Applicant organisation name:

GILEAD SCIENCES PTY LIMITED

Application details

Please select the program through which the health technology would be funded:

National Health Reform Agreement Addendum (Highly specialised therapies)

Please provide justification for selecting the above program:

The application seeks joint funding by the Commonwealth and states and territories through the High Cost, Highly Specialised Therapy arrangements included in the National Health Reform Agreement (NHRA) Addendum 2020–25.

This program is the current funding mechanism for CAR T-cell therapies provided in Australia.

Is the application for a new listing or a change to an existing listing?

New listing

Provide a rationale for the change to an existing listing:

What is the type of service or health technology?

Therapeutic

PICO set

PICO sets:

PICO set number	PICO set name
1	Axicabtagene ciloleucel for the treatment of relapsed or refractory (r/r) large B-cell lymphoma (LBCL) in the second-line (2L) setting

Application PICO set 1: Axicabtagene ciloleucel for the treatment of relapsed or refractory (r/r) large B-cell lymphoma (LBCL) in the second-line (2L) setting

Supporting documentation

Document type	Document file name
Application PICO set documents	HPP200075_Axicabtagene ciloleucel for the treatment of relapsed or refractory (rr) large B-cell lymphoma (LBCL) in the second-line (2L) setting.docx
Reference list	Reference list.docx

Population

Describe the population in which the proposed health technology is intended to be used:

There are no updates from the initial Application 1722.

As discussed in response to Question 5, LBCL is a heterogenous group of lymphomas with different morphologies, pathologies, gene profiles and clinical characteristics.

The 2016 World Health Organisation (WHO) classification of lymphoid neoplasms updated and defined the appropriate identification of the various entities included in the LBCL classification (Swerdlow 2016). Entities in the LBCL classification include:

- DLBCL, not otherwise specified (NOS), which can be further categorised into two distinct molecular subgroups determined by the type of B-cell DLBCL has grown from: germinal centre B-cell-like (GCB) and activated B-cell-like (ABC)
- high-grade B-cell lymphoma (HGBCL), with or without MYC and BCL2 and/or BCL6 rearrangement
- DLBCL arising from follicular lymphoma
- primary cutaneous DLBCL
- Epstein-Barr virus positive DLBCL
- T-cell/histiocyte rich LBCL
- primary mediastinal B-cell lymphoma (PMBCL)
- DLBCL associated with chronic inflammation

DLBCL (NOS) is the most common subtype of LBCL, accounting for more than 80% of the cases of LBCL (Sehn 20211).

Typical presentation of DLBCL involves rapidly progressive lymphadenopathy (Sehn 20211, Li 2018).

Typical B symptoms (fatigue, weight loss, night sweats, etc.) are observed in roughly one third of patients with DLBCL (Armitage 1998).

Select the most applicable Medical condition terminology (SNOMED CT):

Intervention

Name of the proposed health technology:

Axicabtagene ciloleucel

Comparator

Nominate the appropriate comparator(s) for the proposed medical service (i.e. how is the proposed population currently managed in the absence of the proposed medical service being available in the Australian health care system). This include identifying health care resources that are needed to be delivered at the same time as the comparator service:

Standard of care consisting of salvage chemotherapy ideally followed by myeloablative high-dose chemotherapy and stem cell rescue by means of an autologous stem cell transplant. However, only patients who demonstrate adequate disease response after salvage chemotherapy and for whom a sufficient number of stem cells have been collected are able to receive HDT and an auto-SCT.

Outcomes

Outcome description - please include information about whether a change in patient management, or prognosis, occurs as a result of the test information:

Clinical Effectiveness:

- Proportion of patients administered definitive therapy (i.e., auto-SCT in the SoC arm and axicabtagene ciloleucel in the intervention arm)
- Objective response rate (ORR) and complete response rate (CRR)
- Duration of response
- Event-free survival (EFS)
- Progression-free survival (PFS)
- Time to next treatment
- Health-related quality of life (HRQoL)
- Overall survival
- Quality adjusted survival

Clinical efficacy:

- Percentage of patients having axicabtagene ciloleucel infused of those who underwent leukapheresis
- Time from collection (leukapheresis) to infusion of axicabtagene ciloleucel

Safety Outcomes:

- incidence of adverse events (AEs) and serious adverse events (SAEs)
- incidence of events of special interest e.g.,
 - o incidence of cytokine release syndrome (CRS)
 - o incidence of infection and febrile neutropenia
 - o incidence of cytopenia (neutropenia, thrombocytopenia, anaemia)
 - o incidence of neurologic events (e.g., encephalopathy)

Cost-effectiveness:

- Healthcare resource use and associated costs (including pre- and post-infusion), presented in disaggregated and aggregated format
- Incremental cost per life year gained (LYG)
- Incremental cost per quality adjusted life year (QALY)

Financial implications:

- Number of patients suitable for treatment
- Number of patients who receive treatment and associated financial implications

Specified restrictions for funding

Please add one or more items, with specified restriction for funding, for each Population / Intervention:

Proposed item: BBBBB

Is the proposed item restricted:

Yes - restricted

Provide a short description of the restriction:

Please draft a proposed restriction to define the population and health technology usage characteristics that would define eligibility for funding:

Proposed price of supply:

Redacted

Indicate the overall cost per patient of providing the proposed health technology:

Redacted

Provide details and explain:

How is the technology / service funded at present? (For example: research funding; State-based funding; self funded by patients; no funding or payment):

Funding via NHRA Addendum

Please provide a cost break down attachment:

Document type	File name
Cost breakdown attachment	Cost breakdown attachment.docx

Claims

In terms of health outcomes (comparative benefits and harms), is the proposed technology claimed to be superior, non-inferior or inferior to the comparator(s)?

Superior

Please state what the overall claim is, and provide a rationale:

Based on the primary outcome for OS in ZUMA-7 against standard of care

Estimated utilisation

Estimate the prevalence and/or incidence of the proposed population:

As provided in the ADAR 1722, up to **Redacted** patients in Year 2028

Provide the percentage uptake of the proposed health technology by the proposed population:

Year 1 estimated uptake (%):

Redacted

Year 2 estimated uptake (%):

Redacted

Year 3 estimated uptake (%):

Redacted

Year 4 estimated uptake (%):

Redacted

Estimate the number of patients who will utilise the proposed technology for the first full year:

As provided in the ADAR 1722, up to **Redacted** patients in Year 2023

Optionally, provide details:

Will the technology be needed more than once per patient?

No, once only

Provide references to support these calculations:

Document type	File name
Estimated utilisation references	Estimated utilisation references.docx

Consultation

List all appropriate professional bodies / organisations representing the group(s) of health professionals who provide the health technology/service:

Professional body name:

Australia and New Zealand Transplant and Cellular Therapies society (ANZTCT)

Professional body name:

Haematology Society of Australia and New Zealand (HSANZ)

Professional body name:

The Australian Leukaemia and Lymphoma Group (ALLG)

List all appropriate professional bodies / organisations representing the group(s) of health professionals that may be impacted by the health technology/service:

Professional body name:

Novartis Australia and New Zealand

List the patient and consumer advocacy organisations or individuals relevant to the proposed health technology:

Number of organisations listed: 3

Professional body name:

Lymphoma Australia

Number of organisations listed: 3

Professional body name:

Rare Cancers Australia

Number of organisations listed: 3

Professional body name:

Snowdome Foundation

List the relevant sponsor(s) and / or manufacturer(s) who produce similar products relevant to the proposed service or health technology:

Professional body name:

Haematology Society of Australia and New Zealand (HSANZ)

Professional body name:

Haematology Society of Australia and New Zealand (HSANZ)

Professional body name:

The Australian Leukaemia and Lymphoma Group (ALLG)

Regulatory information

Would the proposed health technology involve the use of a medical device, in-vitro diagnostic test, radioactive tracer or any other type of therapeutic good?

Yes

Has it been listed or registered or included in the Australian Register of Therapeutic Goods (ARTG) by the Therapeutic Goods Administration (TGA)?

Yes

Is the therapeutic good classified by the TGA as either a Class III or Active Implantable Medical Device (AIMD) against the TGA regulatory scheme for devices?

No

Please enter all relevant ARTG ID's:	
ARTG ID	ARTG name
329770	Cellular Therapies - T Cells - Axicabtagene ciloleucel, cryopreserved - T - Yescarta - Gilead Sciences Pty Ltd - Injection, intravenous infusion - Bag

Is the intended purpose in this application the same as the intended purpose of the ARTG listing(s)?

Yes

Application 1722.1 - Axicabtagene ciloleucel (YESCARTA®) relapsed or refractory large B-cell lymphoma