CAR-T Cell Treatments

Clinical Coverage Criteria

Overview

Chimeric Antigen Receptor (CAR-T) Cell Treatment is a new cancer immunotherapy treatment which involves the patients T-Cells to be removed from their blood and sent to a laboratory. A gene for a special receptor that binds to a certain protein on the patient's cancer cells is added in the laboratory this special receptor is called a chimeric antigen receptor (CAR).Upon return to the patient's body these genetically altered cells are used to attack the cancer cells.

Currently there are two approved CAR-T Cell treatments. Kymriah (tisagenlecleucel) which is utilized for children and young adults up to 25 years and Yescarta (axicabtagene ciloleucel) utilized in adults. Currently both treatments are approved for certain types of cancer but studies are on-going to see if it is a viable last line treatment for other types of cancer.

Policy

CAR-T Cell therapy requires prior authorization. Medical records from the providers who have diagnosed or treated the symptoms prompting this request are also required. The below requirements must be met.

Kymriah:

1. The member is 25 years old or younger with the diagnosis of CD19 positive B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse that that has either not responded to, or relapsed after, second or greater lines of systemic therapy. OR
2. The member is 18 years old or older and has a diagnosis of diffuse large B-cell lymphoma (DLBCL) not otherwise specified that is refractory or in second or later relapse that that has either not responded to, or relapsed after, second or greater lines of systemic therapy. AND
3. The member has adequate organ function and no expectant organ deterioration during treatment AND
4. The member does not have any of the below conditions:
    - Burkitt lymphoma/leukemia
    - Active hepatitis B, C, or any uncontrolled infection
    - Grade 2 to 4 graft-versus-host disease
    - Received allogeneic cellular therapy, such as donor lymphocyte infusion within 6 weeks prior to tisagenlecleucel infusion
    - Active central nervous system disease
5. The treatment center is certified by the manufacturer to perform treatment with Kymriah

Yescarta:

1. The member is at least 18 years of age. AND

2. A diagnosis of DLBCL, primary mediastinal B cell lymphoma, high grade B-cell lymphoma, or DLBCL arising from follicular lymphoma that that has either not responded to, or relapsed after, second or greater lines of systemic therapy. AND
3. The member does not have diagnosed primary CNS lymphoma. AND
4. The member has sufficient functionality of organs, cardiac system, and pulmonary system. AND
5. The member lacks an active or metastatic malignancy that is unlikely to respond to treatment AND
6. No history or diagnosis of the below:
    - Active autoimmune disease requiring treatment
    - Active HIV
    - Active hepatitis B or C
7. The treatment center is certified by the manufacturer to perform treatment with Yescarta

Though there currently are studies being performed regarding the use of CAR-T Cell treatments for other types of cancer they currently are considered experimental and investigational.

Exclusions

- CAR-T Cell treatment other than covered above.
- Off-Label utilization of CAR-T Cell treatments

Codes

Code type	Code	Description
HCPCS	C9399	Unclassified drugs or biologicals
	J3490	Unclassified drugs
	J3590	Unclassified biologics
	J9999	Not otherwise classified, antineoplastic drugs
	Q2041	Axicabtagene ciloleucel, up to 200 million autologous anti-CD19 CAR T Cells, including leukapheresis and dose preparation procedures, per infusion
	Q2042	Tisagenlecleucel, up to 600 million CAR-positive viable T cells, including leukapheresis and dose preparation procedures, per therapeutic dose

References

1. Hayes Inc. Kymriah (Tisagenlecleucel) for Diffuse Large B-Cell Lymphoma Prognosis Overview. Published January 30, 2018.
2. Hayes Inc. Yescarta (Axicabtagene Ciloleucel) Prognosis Overview. Published December 19, 2017.
3. Hayes Inc. Kymriah (Tisagenlecleucel) for Diffuse Large B-Cell Lymphoma Prognosis Overview. Published May 3, 2018.
4. Kalaitsidou M, Kueberuwa G, Schütt A, Gilham DE. CAR T-cell therapy: toxicity and the relevance of preclinical models. Immunotherapy. 2015;7(5):487-97. doi: 10.2217/imt.14.123.

5. Enblad G, Karlsson H, Loskog AS. CAR T-Cell Therapy: The Role of Physical Barriers and Immunosuppression in Lymphoma. Hum Gene Ther. 2015 Aug;26(8):498-505. doi: 10.1089/hum.2015.054.
6. Nellan A, Lee DW. Paving the road ahead for CD19 CAR T-cell therapy. Curr Opin Hematol. 2015 Nov;22(6):516-20. doi: 10.1097/MOH.0000000000000182.
7. Jolley B, Walker S. Chimeric Antigen Receptor T-Cell Therapy for Lymphomas. Hosp Pharm. 2017 Jul;52(7):469-470. doi: 10.1177/0018578717726517. Epub 2017 Sep 11.
8. Pettitt D, Arshad Z, Smith J, et. al. CAR-T Cells: A Systematic Review and Mixed Methods Analysis of the Clinical Trial Landscape. Mol Ther. 2017 Nov 2. pii: S1525-0016(17)30556-7. doi: 10.1016/j.ymthe.2017.10.019. [Epub ahead of print]
9. Forsberg MH, Das A, Saha K, Capitini CM. The potential of CAR T therapy for relapsed or refractory pediatric and young adult B-cell ALL. Ther Clin Risk Manag. 2018 Sep 3;14:1573-1584. doi: 10.2147/TCRM.S146309. eCollection 2018.
10. Rohaan MW, Wilgenhof S, Haanen JBAG. Adoptive cellular therapies: the current landscape. Virchows Arch. 2018 Nov 23. doi: 10.1007/s00428-018-2484-0. [Epub ahead of print]

Policy History

Origination date:	03/01/2018
Approval(s):	Technology Assessment Committee: 02/28/2018 (introduced as a new policy), 12/05/2018 (added for indication of Diffuse Large B-Cell Lymphoma for Kymriah, added code Q2041, updated references), 02/27/2019 (clarified age for Kymriah based on diagnosis, added code Q2042 removed Q2040)

Not all services mentioned in this policy are covered for all products or employer groups. Coverage is based upon the terms of a member's particular benefit plan which may contain its own specific provisions for coverage and exclusions regardless of medical necessity. Please consult the product's Evidence of Coverage for exclusions or other benefit limitations applicable to this service or supply. If there is any discrepancy between this policy and a member's benefit plan, the provisions of the benefit plan will govern. However, applicable state mandates take precedence with respect to fully-insured plans and self-funded non-ERISA (e.g., government, school boards, church) plans. Unless otherwise specifically excluded, federal mandates will apply to all plans. For Medicare and Medicaid members, this policy will apply unless Medicare and Medicaid policies extend coverage beyond this policy.