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**Effective Date: 12/09/2021**

### **Tecartus™ (brexucabtagene autoleucel)**

**HCPCS: Q2053**

**Policy:**

*Requests must be supported by submission of chart notes and patient specific documentation.*

- A. Coverage of the requested drug is provided when all the following are met:
  - a. FDA approved age
  - b. Prescribed by on in consultation with an oncologist
  - c. Treatment of adult patients with relapsed or refractory mantle cell lymphoma
    - i. Subjects must have received adequate prior therapy including at a minimum:
      - 1. An anthracycline or bendamustine-containing chemotherapy
      - 2. An anti-CD20 monoclonal antibody therapy
      - 3. A Bruton's tyrosine kinase (BTK) inhibitor
    - ii. Documentation of CD 19 tumor expression
    - iii. Must have 1 measurable lesion
    - iv. Do not have any of the following:
      - 1. ECOG performance status of 2 or greater
      - 2. Absolute neutrophil count < 1,000/ $\mu$ L
      - 3. Platelet count < 75,000/ $\mu$ L
      - 4. Serum alanine aminotransferase/aspartate aminotransferase  $\geq$  2.5 times the upper limit of normal
      - 5. Creatinine clearance < 60 mL/min
      - 6. Cardiac ejection fraction < 50%
      - 7. Active infection including hepatitis B, hepatitis C, HIV, or systemic fungal, bacterial, or viral infection
      - 8. Prior allogeneic HSCT
      - 9. Active central nervous system malignancy as determined by appropriate testing.  
Examples include: MRI and/or CSF analysis (including cytology plus molecular analysis, for example FISH)
  - d. Diagnosis of relapsed<sup>a</sup>/refractory<sup>b</sup> B-cell precursor acute lymphoblastic leukemia (ALL)
    - i. Patients with Philadelphia chromosome positive (Ph+) ALL are eligible if they are intolerant to or have failed 2 lines of tyrosine kinase inhibitor therapy (TKI), or if TKI therapy is contraindicated
    - ii. Documentation of CD19 tumor expression
    - iii. Do not have any of the following:

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1. ECOG performance status of 2 or greater
  2. Diagnosis of Burkitt's lymphoma
  3. Grade 2 to 4 graft-versus-host disease
  4. Serum alanine aminotransferase/aspartate aminotransferase  $\geq 2.5$  times the upper limit of normal
  5. Creatinine clearance  $< 60$  mL/min
  6. Cardiac ejection fraction  $< 50\%$
  7. Active infection including hepatitis B, hepatitis C, HIV, or systemic fungal, bacterial, or viral infection
  8. Received allogeneic cellular therapy, such as donor lymphocyte infusion within 6 weeks prior to Tecartus infusion
  9. Active central nervous system malignancy as determined by appropriate testing. Examples include: MRI and/or CSF analysis (including cytology plus molecular analysis, for example FISH)
- e. Have not received prior treatment with any CAR-T therapy despite indication or any other genetically-modified T-cell therapy or are being considered for treatment with any other genetically-modified T-cell therapy
  - f. Only to be administered at certified bone marrow/stem cell transplant centers
  - g. Trial and failure, intolerance, or a contraindication to the preferred products as listed in the BCBSM/BCN utilization management medical drug list
  - h. The prescriber needs to submit documentation of response to Tecartus within 3 months following therapy as a follow-up to the prior approval request.
  - i. If new diagnoses are FDA approved, coverage will be determined based on the FDA approved indication on a case by case basis until fully evaluated by the BCBSM Pharmacy and Therapeutics Committee

**B. Quantity Limitations, Authorization Period and Renewal Criteria**

- a. Quantity Limits: Align with FDA recommended dosing
- b. Authorization Period: 2 months with the allowance of only one dose per lifetime
- c. Renewal Criteria: Not applicable as no further authorization will be provided

<sup>a</sup> Refractory (resistant) disease is defined as those patients who fail to obtain complete response with induction therapy, ie, failure to eradicate all detectable leukemia cells ( $<5\%$  blasts) from the bone marrow and blood with subsequent restoration of normal hematopoiesis ( $>25\%$  marrow cellularity and normal peripheral blood counts).

<sup>b</sup> Relapsed disease describes the reappearance of leukemia cells in the bone marrow or peripheral blood after the attainment of a complete remission with chemotherapy and/or allogeneic stem cell transplant

\*\*\*Note: Coverage may differ for Medicare Part B members based on any applicable criteria outlined in Local Coverage Determinations (LCD) or National Coverage Determinations (NCD) as determined by Center for Medicare and Medicaid Services (CMS). See the CMS website at <http://www.cms.hhs.gov/>. Determination of coverage of Part B drugs is based on medically accepted indications which have supported citations included or approved for inclusion determined by CMS approved compendia.

**Background Information:**

- CAR-T therapy is a type of treatment that utilizes the body's own immune system to fight cancer. T-cells are collected from the patient via apheresis and are genetically engineered in the laboratory to produce chimeric antigen receptors on the cell surface, allowing the T-cells to recognize an antigen on target cancer cells. Once the tumor cells are identified, they are attacked and killed by the CAR-T therapy.
- CAR-T therapy has not been studied when given following prior treatment with any CAR-T therapy or following any other genetically-modified T-cell therapy.

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- Due to the risk of cytokine release syndrome and neurological toxicities, CAR-T therapies are only allowed to be given at treatment centers certified by their REMS programs. CAR-T REMS programs require certified hospitals and their clinics to have on-site, immediate access to tocilizumab and an understanding of how to manage the risks of the associated CAR-T side effects.
- Tecartus is indicated for the treatment of adult patients with relapsed or refractory mantle cell lymphoma (MCL).
- Safety and efficacy were established in the ZUMA-2 trial, a single-arm, open-label, multicenter phase II study of 74 adult patients with relapsed or refractory mantle cell lymphoma. Patients had received up to 5 prior lines of therapy, including an anti-CD20 antibody, either an anthracycline- or bendamustine-containing chemotherapy regimen, and a Bruton's tyrosine kinase (BTK) inhibitor. Three patients experienced manufacturing failure, one died of progressive disease, and one withdrew from the study prior to lymphodepleting chemotherapy. One patient received lymphodepleting chemotherapy but did not receive Tecartus due to ongoing active atrial fibrillation. Tecartus was administered as a single intravenous infusion at a target dose of  $2 \times 10^6$  CAR-positive viable T-cells/kg. The lymphodepleting regimen consisted of cyclophosphamide 500 mg/m<sup>2</sup> intravenously and fludarabine 30 mg/m<sup>2</sup> intravenously given on the fifth, fourth, and third day before Tecartus. Patients with prior allogeneic HSCT, any active central nervous system malignancy, ECOG performance status of 2 or greater, absolute neutrophil count less than 1,000/ $\mu$ L, platelet count < 75,000/ $\mu$ L, creatinine clearance less than 60 mL/min, hepatic transaminases more than 2.5 times the upper limit of normal, cardiac ejection fraction less than 50%, or active serious infection were excluded. The primary endpoint was objective response rate to therapy which was 87%, including 37 patients who had complete response (62%) and 15 who had a partial response (25%). The median time to response was 28 days with median duration of response not yet being reached.
- Safety and efficacy for use in acute lymphoblastic leukemia were established in the ZUMA-3 trial, a multicenter, phase I/II trial of 55 adult patients with relapsed or refractory ALL. Patients must have had documentation of CD19 positive disease and if they were Philadelphia chromosome positive, must have been intolerant to, had a contraindication to, or have failed 2 lines of tyrosine kinase inhibitor therapy. Patients with prior allogeneic SCT within 100 days of therapy, any active central nervous system malignancy, ECOG performance status of 2 or greater, creatinine clearance less than 60 mL/min, hepatic transaminases more than 2.5 times the upper limit of normal, cardiac ejection fraction less than 50%, diagnosis of Burkitt's lymphoma, grade 2 to 4 graft-versus-host disease, or active serious infection were excluded. The primary endpoint is overall complete remission rate. In the study, 70.9% presented with a complete remission rate. The median duration of response was 12.8 months and the median overall survival (OS) was 18.2 months.
- Disease should be measured/staged with PET-CT. Focal uptake in nodal and extranodal sites is considered involvement with lymphoma, including spleen, liver, bone, thyroid, and so on. A measurable node must have a longest diameter (LDi) greater than 1.5 cm. A measurable extranodal lesion should have an LDi greater than 1.0 cm. All other lesions (including nodal, extranodal, and assessable disease) should be followed as nonmeasured disease (eg, cutaneous, GI, bone, spleen, liver, kidneys, pleural or pericardial effusions, ascites).

## References:

1. Tecartus [prescribing information]. Santa Monica, CA: Kite Pharma, Inc.; October 2021.
2. National Comprehensive Cancer Network. Acute lymphoblastic leukemia (Version 2.2021). 2021 July 19. Available at: [https://www.nccn.org/professionals/physician\\_gls/pdf/all.pdf](https://www.nccn.org/professionals/physician_gls/pdf/all.pdf). Accessed on October 6, 2021.
3. National Comprehensive Cancer Network. B-cell lymphomas (Version 5.2021). 2021 September 22. Available at: [https://www.nccn.org/professionals/physician\\_gls/pdf/b-cell.pdf](https://www.nccn.org/professionals/physician_gls/pdf/b-cell.pdf). Accessed on October 6, 2021.
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7. GlobalData Healthcare. ASCO 2021: tecartus' ZUMA-3 trial to support a first label in adult r/r all. 2021 June 10. Available at: <https://www.clinicaltrialsarena.com/comment/asco-2021-tecartus-zuma-3-all/>. Accessed on June 21, 2021.
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Policy History												
#	Date	Change Description										
1.3	Effective Date: 12/09/2021	Updated to include new indication of ALL										
1.2	Effective Date: 08/12/2021	New policy. This policy replaces previously approved criteria that was embedded in Chimeric Antigen Receptor-T Cell Class policy which will be retired. The criteria was also updated to add preliminary criteria for use in ALL.										
1.1	Effective Date: 01/01/2021	UM medical management system update for MAPPO and BCNA <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Line of Business</th> <th>PA Required in Medical Management System (Yes/No)</th> </tr> </thead> <tbody> <tr> <td>BCBS</td> <td>Yes</td> </tr> <tr> <td>BCN</td> <td>Yes</td> </tr> <tr> <td>MAPPO</td> <td>Yes</td> </tr> <tr> <td>BCNA</td> <td>Yes</td> </tr> </tbody> </table>	Line of Business	PA Required in Medical Management System (Yes/No)	BCBS	Yes	BCN	Yes	MAPPO	Yes	BCNA	Yes
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\* The prescribing information for a drug is subject to change. To ensure you are reading the most current information it is advised that you reference the most updated prescribing information by visiting the drug or manufacturer website or <http://dailymed.nlm.nih.gov/dailymed/index.cfm>.