Clinical Policy: Brexucabtagene Autoleucel (Tecartus)

Reference Number: CP.PHAR.472
Effective Date: 07.24.20
Last Review Date: 02.25
Line of Business: Commercial, HIM, Medicaid

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

Brexucabtagene autoleucel (Tecartus®) is a CD19-directed chimeric antigen receptor (CAR) T cell therapy.

FDA Approved Indication(s)

Tecartus is indicated for the treatment of:

- Adult patients with relapsed or refractory mantle cell lymphoma (MCL)*
- Adult patients with relapsed or refractory B-cell precursor acute lymphoblastic lymphoma (ALL)

**This indication is approved under accelerated approval based on overall response rate and durability of response. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.*

Policy/Criteria

Provider must submit documentation (such as office chart notes, lab results, or other clinical information) supporting that member has met all approval criteria.

All requests reviewed under this policy **require Precision Drug Action Committee (PDAC) Utilization Management Review**. Refer to CC.PHAR.21 for process details.

It is the policy of health plans affiliated with Centene Corporation® that Tecartus is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Mantle Cell Lymphoma* (must meet all)**:**

**Only for initial treatment dose; subsequent doses will not be covered.*

1. Diagnosis of relapsed or refractory MCL;
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Age ≥ 18 years;
4. Recent (within the last 30 days) absolute lymphocyte count (ALC) ≥ 100 cells/µL;
5. Member has previously received 2 to 5 prior regimens that included all of the following (a, b, and c):
   a. Anthracycline (e.g., doxorubicin) or bendamustine-containing chemotherapy;
   b. Anti-CD20 monoclonal antibody therapy (e.g., rituximab);
   c. Bruton tyrosine kinase (BTK) inhibitor (e.g., Imbruvica®, Calquence®, Brukinsa™);

6. Member does not have a history of or current central nervous system (CNS) disease or CNS disorders as detected by magnetic resonance imaging [MRI] (i.e., detectable cerebrospinal fluid malignant cells or brain metastases, CNS lymphoma, seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, cerebral edema, posterior reversible encephalopathy syndrome, or any autoimmune disease with CNS involvement);
7. Member does not have a history of allogeneic stem cell transplantation;
8. Member has not previously received treatment with CAR T-cell immunotherapy (e.g., Abecma®, Breyanzi™, Carvykti™, Kymriah™, Yescarta™);
9. Tecartus is not prescribed concurrently with other CAR T-cell immunotherapy (e.g., Abecma, Breyanzi, Carvykti, Kymriah, Yescarta);
10. Dose does not exceed 2 x 10^8 CAR-positive viable T cells.

Approval duration: 3 months ***(1 dose only, with 4 doses of tocilizumab (Actemra) if requested at up to 800 mg per dose)***

B. Acute Lymphoblastic Leukemia* (must meet all):
**Only for initial treatment dose; subsequent doses will not be covered.*

1. Diagnosis of B-cell precursor ALL;
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Age ≥ 18 years;
4. Recent (within the last 30 days) ALC ≥ 100/µL;
5. Request meets one of the following (a or b):
   a. Member has relapsed or refractory disease defined as one of the following (i - iv):
      i. Primary refractory disease;
      ii. First relapse if first remission ≤ 12 months;
      iii. Relapsed or refractory disease after 2 or more lines of systemic therapy;
      iv. Relapsed following allogeneic stem cell transplantation (allo-SCT) and must be ≥ 100 days from allo-SCT at the time of Tecartus infusion;
   b. Disease is relapsed or refractory, Philadelphia chromosome positive, and member has received 2 tyrosine kinase inhibitors (e.g., imatinib, Sprycel®, Tasigna®, Bosulif®, Iclusig®);
      **Prior authorization may be required for tyrosine kinase inhibitors*
6. If previously treated with Blincyto®, documentation of CD19 tumor expression on blasts obtained from bone marrow or peripheral blood after completion of the most recent prior line of therapy;
7. Member does not have CNS-3 disease* or have a history or presence of any CNS disorder (e.g., seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, any autoimmune disease with CNS involvement, posterior reversible encephalopathy syndrome, or cerebral edema);
   **CNS-3 disease is defined as detectable cerebrospinal blast cells in a sample of CSF with ≥ 5 white blood cells (WBCs) per mm^3*
8. If member has CNS-2 disease*, documentation of no clinically evident neurological changes;
   **CNS-2 disease is defined as CSF blast cells with < 5 WBC/mm^3*
9. Member has not previously received treatment with CAR T-cell immunotherapy (e.g., Abecma, Breyanzi, Carvykti, Kymriah, Yescarta);

10. Tecartus is not prescribed concurrently with other CAR T-cell immunotherapy (e.g., Abecma, Breyanzi, Carvykti, Kymriah, Yescarta);
11. Dose does not exceed 1 x 10^8 CAR-positive viable T cells.

Approval duration: 3 months ***(1 dose only, with 4 doses of tocilizumab (Actemra) if requested at up to 800 mg per dose)***

C. Other diagnoses/indications (must meet 1 or 2)**:**

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
   a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
   b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

II. Continued Therapy

A. All Indications in Section I

1. Continued therapy will not be authorized as Tecartus is indicated to be dosed one time only.

Approval duration: Not applicable

B. Other diagnoses/indications (must meet 1 or 2)**:**

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
   a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
   b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line

of business: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

III. Diagnoses/Indications for which coverage is NOT authorized:

A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid, or evidence of coverage documents;

B. MCL: History of or current CNS disease or CNS disorders as detected by MRI (i.e., detectable cerebrospinal fluid malignant cells or brain metastases, CNS lymphoma, seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, cerebral edema, posterior reversible encephalopathy syndrome, or any autoimmune disease with CNS involvement);

C. MCL: History of allo-SCT;

D. ALL: History or presence of any CNS disorder, such as a seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, any autoimmune disease with CNS involvement, posterior reversible encephalopathy syndrome, or cerebral edema;

E. ALL: Presence of CNS-3 disease defined as detectable cerebrospinal blast cells in a sample of CSF with ≥ 5 white blood cells (WBCs) per mm^3 with or without neurological changes.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ALC: absolute lymphocyte count
Allo-SCT: allogeneic stem cell transplantation
ALL: acute lymphoblastic leukemia
CAR: chimeric antigen receptor
CNS: central nervous system
CSF: cerebrospinal fluid
FDA: Food and Drug Administration
MCL: mantle cell lymphoma
MRI: magnetic resonance imaging
WBC: white blood cells

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
Mantle Cell Lymphoma		
HyperCVAD (cyclophosphamide, vincristine, doxorubicin, dexamethasone/methotrexate/ cytarabine) + rituximab	Varies	Varies
NORDIC (rituximab + cyclophosphamide, vincristine, doxorubicin, prednisone/rituximab + cytarabine)	Varies	Varies

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
RCHOP/RDHAP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone)/(rituximab, dexamethasone, cisplatin, cytarabine)	Varies	Varies
RDHA (rituximab, dexamethasone, cytarabine) + platinum (carboplatin, cisplatin, or oxaliplatin)	Varies	Varies
RCHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone)	Varies	Varies
Bendeka® (bendamustine) ± rituximab	Varies	Varies
VR-CAP (bortezomib, rituximab, cyclophosphamide, doxorubicin, prednisone)	Varies	Varies
Revlimid® (lenalidomide) + rituximab	Varies	Varies
bortezomib ± rituximab	Varies	Varies
lenalidomide ± rituximab	Varies	Varies
Imbruvica® (ibrutinib) ± rituximab	560 mg PO QD	560 mg/day
Calquence® (acalabrutinib)	100 mg PO BID	400 mg/day
Brukinsa® (zanubrutinib)	160 mg PO BID or 320 mg PO QD	320 mg/day
Venclexta® (venetoclax)	20 mg/day for week 1, 50 mg/day for week 2, 100 mg/day for week 3, 200 mg/day for week 4, 400 mg/day for week 5. Week 6 and thereafter: 800 mg/day	800 mg/day
Acute Lymphoblastic Leukemia		
imatinib mesylate (Gleevec®)	Adults with Ph+ ALL: 600 mg/day Pediatrics with Ph+ ALL: 340 mg/m^2/day	Adults: 800 mg/day Pediatrics: 600 mg/day
Sprycel® (dasatinib)	Ph+ ALL: 140 mg per day	180 mg/day
Iclusig® (ponatinib)	Ph+ ALL: 45 mg per day	45 mg/day
Tasigna® (nilotinib)	Resistant or intolerant Ph+ CML-CP and CML-AP: 400 mg twice per day	800 mg/day
Bosulif® (bosutinib)	Ph+ CML: 500 mg per day	600 mg/day

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
Various combination regimens that may include the following: daunorubicin, doxorubicin, vincristine, dexamethasone, prednisone, pegaspargase, nelarabine, methotrexate, cyclophosphamide, cytarabine, rituximab, 6-mercaptopurine	Ph- ALL: varies	Varies

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): none reported
- Boxed warning(s):
  - Cytokine release syndrome: do not administer Tecartus to patients with active infection or inflammatory disorders; treat severe or life-threatening cytokine release syndrome with tocilizumab or tocilizumab and corticosteroids
  - Neurologic toxicities: monitor for neurologic toxicities after treatment with Tecartus; provide supportive care and/or corticosteroids, as needed
  - T cell malignancies have occurred following treatment of hematologic malignancies with BCMA- and CD19-directed genetically modified autologous T cell immunotherapies
  - Tecartus is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the Tecartus REMS

Appendix D: General Information

- The ZUMA-2 trial included only patients with MCL and an ALC ≥ 100 cells/µL and a magnetic resonance imaging (MRI) of the brain showing no evidence of CNS lymphoma. Subjects with detectable cerebrospinal fluid malignant cells or brain metastases or with a history of CNS lymphoma were excluded. The trial also excluded patients with history or presence of CNS disorder, such as seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, cerebral edema, posterior reversible encephalopathy syndrome, or any autoimmune disease with CNS involvement. Additionally, patients with a history of allogeneic stem cell transplantation or prior CAR therapy or other genetically modified T-cell therapy were excluded.
- Tecartus is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the Yescarta and Tecartus REMS Program.
- Refractory disease is defined as an inability to achieve a complete response to therapy.
- The ZUMA-3 trial in patients with ALL excluded patients with:
  - Presence of CNS-3 disease defined as detectable cerebrospinal blast cells in a sample of CSF with ≥ 5 WBCs per mm^3 with or without neurological changes;
  - Presence of CNS-2 disease defined as detectable cerebrospinal blast cells in a sample of CSF with <5 WBCs per mm^3 with neurological changes;
  - History or presence of any CNS disorder, such as a seizure disorder, cerebrovascular ischemia/hemorrhage, dementia, cerebellar disease, any autoimmune disease with CNS involvement, posterior reversible encephalopathy syndrome, or cerebral edema.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
MCL	Target dose: 2×10^6 CAR-positive viable T cells per kg body weight	2×10^8 CAR-positive viable T cells
ALL	1×10^6 CAR-positive viable T cells/kg	1×10^8 CAR-positive viable T cells/kg

VI. Product Availability

Single-dose unit infusion bag: frozen suspension of genetically modified autologous T-cells labeled for the specific recipient

VII. References

1. Tecartus Prescribing Information. Santa Monica, CA: Kite Pharma, Inc.; June 2024. Available at: https://www.tecartus.com/ Accessed October 17,2024.
2. Wang M, Munoz J, Goy A, et al. KTE-X19 CAR T-Cell Therapy in Relapsed or Refractory Mantle-Cell Lymphoma. N Engl J Med 2020;382:1331-42.
3. National Comprehensive Cancer Network. B-cell Lymphomas Version 3.2024. Available at: https://www.nccn.org/professionals/physician_gls/pdf/b-cell.pdf. Accessed October 23, 2024.
4. Shah BD, Ghobadi A, Oluwole OO, et al. KTE-X19 for relapsed or refractory adult B-cell acute lymphoblastic leukemia: phase 2 results of the single-arm, open-label, multicentre ZUMA-3 study. Lancet. 2021 Jun 3; S0140-6736 (21) 01222-8.
5. National Comprehensive Cancer Network. Acute Lymphoblastic Leukemia Version 2.2024. Available at: https://www.nccn.org/professionals/physician_gls/pdf/all.pdf. Accessed October 23, 2024.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
Q2053	Brexucabtagene autoleucel, up to 200 million autologous anti-cd19 car positive viable t cells, including leukapheresis and dose preparation procedures, per therapeutic dose

Reviews, Revisions, and Approvals	Date	P&T Approval Date
1Q 2021 annual review: clarified CNS disease should be ruled out by MRI; references to HIM.PHAR.21 revised to HIM.PA.154; added coding implications; references reviewed and updated.	11.18.20	02.21
Added disclaimer under Policy/Criteria "All requests reviewed under this policy **require medical director review.**"	05.04.21	

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Added preemptive criteria for the pending FDA approval of ALL indication; clarified Actemra authorization may be considered if requested.	06.08.21	08.21
Drug is now FDA approved for ALL – criteria updated per FDA labeling; added additional requirements for CNS disease exclusions per ZUMA-3 clinical trial exclusion criteria; updated dosing per label; references reviewed and updated.	10.05.21	11.21
1Q 2022 annual review: corrected max dosing which is flat dosing (not based on kilogram weight); updated HCPCS codes; references reviewed and updated.	10.19.21	02.22
Template changes applied to other diagnoses/indications and continued therapy section.	09.28.22	
1Q 2023 annual review: no significant changes; added Carvykti as examples listed for CAR-T therapies; references reviewed and updated.	10.27.22	02.23
1Q 2024 annual review: per NCCN for Ph+ ALL, revised requirement to include relapse or refractory disease and modified verbiage from "failure of" to "member has received 2 tyrosine kinase inhibitors"; references reviewed and updated.	10.06.23	02.24
1Q 2025 annual review: no significant changes; added the following to Appendix C per updated prescribing information: T cell malignancies have occurred following treatment of hematologic malignancies with BCMA- and CD19- directed genetically modified autologous T cell immunotherapies. Tecartus is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the Tecartus REMS; references reviewed and updated.	10.17.24	02.25
Updated language under Policy/Criteria to effectively redirect prior authorization reviews to Precision Drug Action Committee (PDAC) Utilization Management Review.	11.04.25	

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions, and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment, or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members, and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

Note:
For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.