Clinical Policy: Blinatumomab (Blincyto)

Reference Number: PA.CP.PHAR.312
Effective Date: 01/2018
Last Review Date: 07/2023

Coding Implications
Revision Log

Description
Blinatumomab (Blincyto®) is a bispecific CD19-directed CD3 T-cell engager.

FDA Approved Indication(s)
Blincyto is indicated in adults and children for the treatment of:

- CD19-positive B-cell precursor acute lymphoblastic leukemia (B-ALL) in first or second complete remission with minimal residual disease (MRD) ≥ 0.1%.*
  **This indication is approved under accelerated approval based on MRD response rate and hematological relapse-free survival. Continued approval for this indication may be contingent upon verification and description of clinical benefit in the confirmatory trials.*
- Relapsed or refractory CD19-positive B-ALL.

Policy/Criteria
It is the policy of PA Health & Wellness ® that Blincyto is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Acute Lymphoblastic Leukemia (must meet all):

1. Diagnosis of B-ALL;
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Requested as treatment for (a, b or c):
   a. B-ALL in remission but positive for minimal residual disease (MRD+);
   b. Relapsed or refractory B-ALL (i or ii):
      i. Philadelphia chromosome-negative (Ph-) disease;
      ii. Philadelphia chromosome-positive (Ph+) disease prescribed with or without tyrosine kinase inhibitor* (TKI; i.e., imatinib, Sprycel®, Tasigna®, Bosulif®, Iclusig®);
      **Prior authorization may be required for these agents.*
   c. Infant ALL, and prescribed in combination with an Interfant regimen;
4. Request meets one of the following (a or b):
   a. Dose does not exceed 28 mcg per day;
   b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence).

Approval duration: 6 months

B. Other diagnoses/indications: Refer to PA.CP.PMN.53

II. Continued Approval

A. Acute Lymphoblastic Leukemia (must meet all)**:**

1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;;
2. Member is responding positively to therapy;

3. If request is for a dose increase, request meets one of the following (a or b):
   a. New dose does not exceed 28 mcg per day;
   b. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence).

Approval duration: 12 months

B. Other diagnoses/indications (must meet 1 or 2)**:**
1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.LTSS.PHAR.01) applies; or
2. Refer to PA.CP.PMN.53

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

B-ALL: B-cell precursor acute lymphoblastic leukemia
CR: complete remission
FDA: Food and Drug Administration
MRD: minimal residual disease
NCCN: National Comprehensive Cancer Network
TKI: tyrosine kinase inhibitor

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
Sprycel® (dasatinib)	Ph+ ALL: Adults: 140 mg PO QD *(resistance or intolerance to prior therapy)* Children and adolescents: PO QD weight-based *(newly diagnosed disease)*	Adults: 180 mg/day Children: 100 mg/day
Iclusig® (ponatinib)	Ph+ ALL: Adults: 45 mg PO QD *(T315I-positive disease or no other TKI is indicated)*	45 mg/day
Tasigna® (nilotinib)	Ph+ ALL: ǂ	Varies
Bosulif® (bosutinib)	Ph+ ALL: ǂ	Varies
imatinib (Gleevec®)	Ph+ ALL: Adults: 600 mg PO once daily until disease progression	600 mg/day

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.
**The above-referenced TKIs are NCCN recommended for PH+ ALL (category 1 or 2a).*
ǂ *off-label use*

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): known hypersensitivity to blinatumomab or to any component of the product formulation

- Boxed warning(s): cytokine release syndrome (CRS); neurological toxicities

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
B-ALL (in remission and MRD-positive)	Treatment course: 1 cycle of Blincyto IV for induction followed by up to 3 additional cycles for consolidation. • Patients ≥ 45 kg receive a fixed dose o Induction cycle 1 ▪ Days 1-28: 28 mcg/day ▪ Days 29-42: 14-day treatment-free interval o Consolidation cycles 2-4 ▪ Days 1-28: 28 mcg/day ▪ Days 29-42: 14-day treatment-free interval • Patients < 45 kg based on body surface area (BSA) o Induction cycle 1 ▪ Days 1-28: 15 mcg/m^2/day ▪ Days 29-42: 14-day treatment-free interval o Consolidation cycles 2-4 ▪ Days 1-28: 15 mcg/m^2/day ▪ Days 29-42: 14-day treatment-free interval	28 mcg/day
B-ALL (relapsed or refractory)	Treatment course: 2 cycles of Blincyto IV for induction followed by 3 cycles for consolidation and up to 4 cycles of continued therapy. • Patients ≥ 45 kg receive a fixed dose o Induction cycle 1 ▪ Days 1-7: 9 mcg/day ▪ Days 8-28: 28 mcg/day ▪ Days 29-42: 14-day treatment-free interval o Induction cycle 2 ▪ Days 1-28: 28 mcg/day ▪ Days 29-42: 14-day treatment-free interval o Consolidation cycles 3-5 ▪ Days 1-28: 28 mcg/day ▪ Days 29-42: 14-day treatment-free interval o Continued therapy cycles 6-9 ▪ Days 1-28: 28 mcg/day ▪ Days 29-84: 56-day treatment-free interval • Patients < 45 kg based on body surface area (BSA) o Induction cycle 1 ▪ Days 1-7: 5 mcg/m^2/day ▪ Days 8-28: 15 mcg/m^2/day ▪ Days 29-42: 14-day treatment-free interval o Induction cycle 2 ▪ Days 1-28: 15 mcg/m^2/day ▪ Days 29-42: 14-day treatment-free interval o Consolidation cycles 3-5	28 mcg/day

Indication	Dosing Regimen	Maximum Dose
	▪ Days 1-28: 15 mcg/m^2/day ▪ Days 29-42: 14-day treatment-free interval o Continued therapy cycles 6-9 ▪ Days 1-28: 15 mcg/m^2/day ▪ Days 29-84: 56-day treatment-free interval	

V. Product Availability

Single-dose vial for reconstitution: 35 mcg

VI. References

1. Blincyto Prescribing Information. Thousand Oaks, CA: Amgen, Inc.; February 2022. Available at: http://pi.amgen.com/~/media/amgen/repositorysites/pi-amgen-com/blincyto/blincyto_pi_hcp_english.ashx. Accessed April 14, 2023.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at nccn.org. Accessed May 17, 2023.
3. National Comprehensive Cancer Network Guidelines. Acute Lymphoblastic Leukemia Version 1.2022. Available at https://www.nccn.org/professionals/physician_gls/pdf/all.pdf.. Accessed May 17, 2023.
4. National Comprehensive Cancer Network Guidelines. Pediatrics Acute Lymphoblastic Leukemia Version 2.2023. Available at https://www.nccn.org/professionals/physician_gls/pdf/ped_all.pdf. Accessed May 17, 2023.
5. Clinical Pharmacology [database online]. Elsevier, Inc.; 2023. Available at https://www.clinicalkey.com/pharmacology/. Accessed May 17, 2023.

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
J9039	Injection, blinatumomab, 1 microgram

Reviews, Revisions, and Approvals	Date	Approval Date
3Q 2018 annual review: new indication for MRD+ B-ALL added; summarized NCCN and FDA-approved uses for improved clarity (TKI requirement reduced from 2 to 1 for Ph+ disease); added specialist involvement in care; references reviewed and updated.	05/2018	
3Q 2019 annual review: No changes per Statewide PDL implementation 01-01-2020	07/2019	
3Q 2020 annual review: Addition of dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use	07/2020	

Reviews, Revisions, and Approvals	Date	Approval Date
(prescriber must submit supporting evidence); references reviewed and updated.		
3Q 2021 annual review: updated FDA-indication to clarify B-ALL is CD19-positive; references reviewed and updated.	07/2021	
3Q 2022 annual review: no significant changes; references reviewed and updated.	07/2022	
3Q 2023 annual review: added pathways for use in Ph+ B-ALL in combination with TKI and for use in infant ALL per NCCN; references reviewed and updated.	07/2023	