In newly diagnosed patients immediately following frontline induction therapy, move beyond complete remission[1]

Choose BLINCYTO® for your pediatric and AYA patients with B-cell precursor ALL

BLINCYTO® converted most patients to MRD(–),* making it possible to live disease-free longer[1-3,†]

In the phase 2 BLAST study, BLINCYTO® converted 81% (n=70/86) of adult patients to MRD(–).[1,‡] In the retrospective study, BLINCYTO® converted 93% (n=14/15) of pediatric patients to MRD(–).[3] It is unknown whether achieving MRD negativity alone provides a survival benefit comparable to that of HSCT. Due to the differential effect of HSCT on RFS, interpretation of the results of RFS cannot exclude potential confounding of HSCT.[2] Therefore the survival benefit cannot be isolated to BLINCYTO® treatment alone.

*A complete MRD response, defined as the absence of detectable MRD confirmed in an assay with a minimum sensitivity of 0.01%.[1]
†Kaplan-Meier estimates with 2-sided 95% CIs were used to describe RFS; differences between subgroups were evaluated using log-rank test.[2]
‡The treated population included 86 patients in first or second hematologic complete remission (CR1 or CR2). Following treatment with BLINCYTO®, 45 out of 61 (73.8%) patients in CR1 and 14 out of 25 (56.0%) patients in CR2 underwent HSCT in continuous hematologic complete remission.[1]

ALL, acute lymphoblastic leukemia; AYA, adolescent and young adult; CI, confidence interval; HSCT, allogeneic hematopoietic stem cell transplantation; MRD, minimal residual disease; RFS, relapse-free survival.

INDICATION

BLINCYTO® is indicated for the treatment of B-cell precursor acute lymphoblastic leukemia (ALL) in first or second complete remission with minimal residual disease (MRD) greater than or equal to 0.1% in adults and children.

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.

IMPORTANT SAFETY INFORMATION

WARNING: CYTOKINE RELEASE SYNDROME and NEUROLOGICAL TOXICITIES

- **Cytokine Release Syndrome (CRS), which may be life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® and treat with corticosteroids as recommended.**
- **Neurological toxicities, which may be severe, life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® as recommended.**

Click here to see full Prescribing Information, including **Boxed WARNINGS** and Medication Guide, for BLINCYTO®.

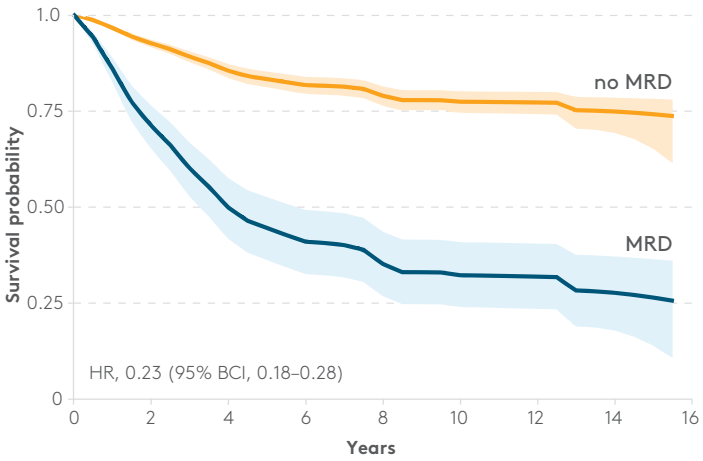
BLINCYTO® (blinatumomab) for injection
35 mcg single-dose vial

MRD response is an important predictor of prognosis in pediatric and AYA patients[4,5]

Persistent or recurrent MRD indicates resistance to standard chemotherapy and is one of the most important risk factors for hematologic relapse in B-cell precursor ALL.[2]

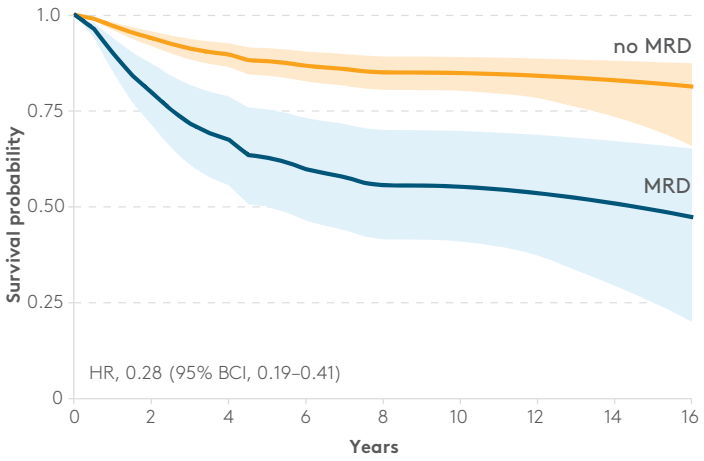
Pediatric patients who achieve MRD-negativity are more likely to be alive and disease-free at 10 years[6,*]

EFS for pediatric ALL: 11,249 patients in 20 studies[6]



- Estimated EFS of 77% at 10 years in patients who achieved MRD-negativity vs 32% for those who remained MRD(+)[6]

OS for pediatric ALL: 2,876 patients in 5 studies[6]



- Estimated OS of 84% at 10 years in patients who achieved MRD-negativity vs 55% for those who remained MRD(+)[6]

In pediatric patients, testing for and treating MRD early may improve long-term outcomes[6]

*This data is a meta-analysis of 39 publications of distinct studies with 13,637 patients and is not specific to any treatment.[6]

ALL, acute lymphoblastic leukemia; AYA, adolescent and young adult; BCI, Bayesian credible interval; EFS, event-free survival; HR, hazard ratio; MRD, minimal residual disease; OS, overall survival.

IMPORTANT SAFETY INFORMATION

Contraindications

BLINCYTO® is contraindicated in patients with a known hypersensitivity to blinatumomab or to any component of the product formulation.

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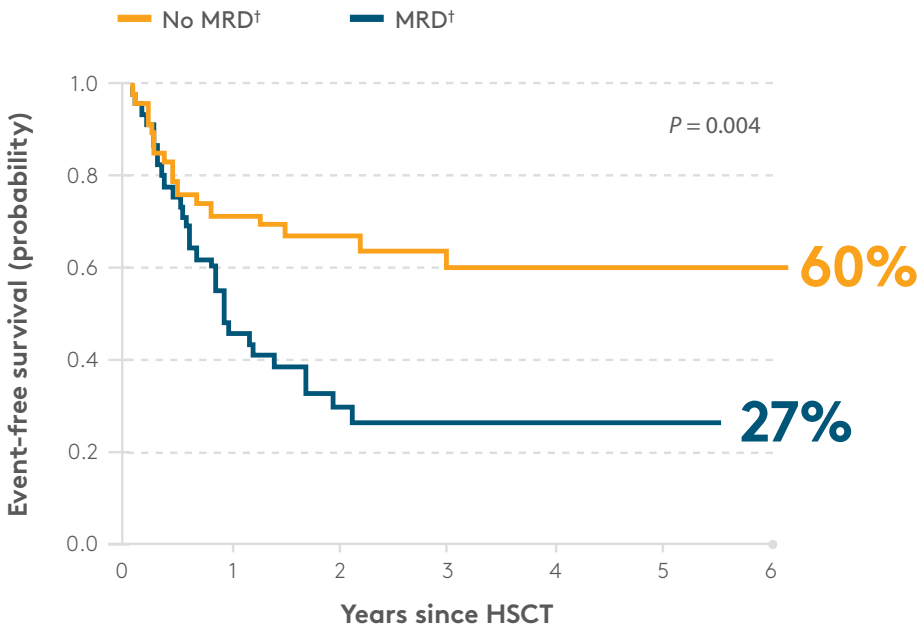
MRD-positivity is associated with high relapse rates after subsequent HSCT[2]

Post-transplant EFS among relapsed pediatric and AYA (aged 3–22 years at time of transplantation) patients by pretransplant MRD levels[7]



- A prospective, blinded study of 91 pediatric and adolescent patients aged 3–22 years with ALL in CR2 or CR3 who underwent HSCT and qualified for MRD assessment[7]
- The post-transplant relapse rate[7] was 53% among patients with pretransplant MRD ≥ 10^{-4} vs 11% among patients with MRD < 10^{-4}

According to NCI, MRD status at the time of transplant is a key independent prognostic factor for post-transplant outcome and survival[4,7-9]

†46 patients had no MRD (defined as < 10^{-4}) and 45 patients had MRD (defined as ≥ 10^{-4}).[7]

CR2, second complete remission; CR3, third complete remission; HSCT, allogeneic hematopoietic stem cell transplantation; NCI, National Cancer Institute.

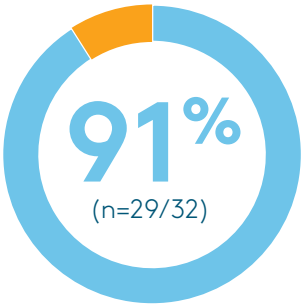
IMPORTANT SAFETY INFORMATION

Warnings and Precautions

- Cytokine Release Syndrome (CRS): CRS, which may be life-threatening or fatal, occurred in 15% of patients with R/R ALL and in 7% of patients with MRD-positive ALL. The median time to onset of CRS is 2 days after the start of infusion and the median time to resolution of CRS was 5 days among cases that resolved. Closely monitor and advise patients to contact their healthcare professional for signs and symptoms of serious adverse events such as fever, headache, nausea, asthenia, hypotension, increased alanine aminotransferase (ALT), increased aspartate aminotransferase (AST), increased total bilirubin (TBILI), and disseminated intravascular coagulation (DIC). The manifestations of CRS after treatment with BLINCYTO® overlap with those of infusion reactions, capillary leak syndrome, and hemophagocytic histiocytosis/macrophage activation syndrome. If severe CRS occurs, interrupt BLINCYTO® until CRS resolves. Discontinue BLINCYTO® permanently if life-threatening CRS occurs. Administer corticosteroids for severe or life-threatening CRS.

In the BLAST study, BLINCYTO® converted most patients to MRD(–)[1,2]

Patients aged 18 to 34 years experienced high conversion rates[2]



of patients aged 18 to 34 years had no detectable MRD*,† after treatment with BLINCYTO®[2]

Study design

The BLAST study was a single-arm phase 2 study of BLINCYTO® treatment for adult patients with MRD(+) B-cell precursor ALL.[1,2]

Overall conversion rate

Of the overall patient population, 81% (n=70/86) had no detectable MRD†,‡ after treatment with BLINCYTO®.[1,2]

*Defined as no target amplification using real-time quantitative polymerase chain reaction with a minimum sensitivity of 0.01%.[2]

†Assessed after 1 treatment cycle.[1]

‡Defined as the absence of detectable MRD confirmed in an assay with a minimum sensitivity of 0.01% for 6 patients and ≤ 0.005% for 80 patients. Undetectable MRD was achieved by 65/80 patients with an assay sensitivity of at least 0.005%.[1]

ALL, acute lymphoblastic leukemia; MRD, minimal residual disease.

Most common adverse reactions in the BLAST study[1]

Most common adverse reactions (≥ 20%) (N=137)[1,a]		
Adverse reaction	**Any Grade[b] n (%)**	**≥ Grade 3[b] n (%)**
General disorders and administration site conditions		
Pyrexia[c]	125 (91)	9 (7)
Chills	39 (28)	0 (0)
Infections and infestations		
Infections—pathogen unspecified	53 (39)	11 (8)
Injury, poisoning, and procedural complications		
Infusion-related reaction[d]	105 (77)	7 (5)
Nervous system disorders		
Headache	54 (39)	5 (4)
Tremor[e]	43 (31)	6 (4)

- Adverse reactions of Grade 3 or higher were reported in 64% of patients[1]

[a]The safety of BLINCYTO® in patients with MRD(+) B-cell precursor ALL was evaluated in 2 single-arm clinical studies with a total of 137 patients.[1]

[b]Grading based on National Cancer Institute (NCI) Common Terminology Criteria for Adverse Events (CTCAE) version 4.0, in which Grade 1 is mild, Grade 2 is moderate, Grade 3 is severe or medically significant but not immediately life-threatening, and Grade 4 is life-threatening.[1,10]

[c]Pyrexia includes body temperature increased and pyrexia.[1]

[d]Infusion-related reaction is a composite term that includes the term infusion-related reaction and the following events occurring within the first 48 hours of infusion and the event lasted ≤ 2 days: cytokine release syndrome, eye swelling, hypertension, hypotension, myalgia, periorbital edema, pruritus generalized, pyrexia, and rash.[1]

[e]Tremor includes essential tremor, intention tremor, and tremor.[1]

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

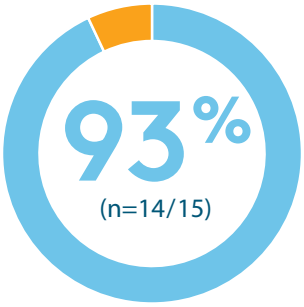
- Infections: Approximately 25% of patients receiving BLINCYTO® in clinical trials experienced serious infections such as sepsis, pneumonia, bacteremia, opportunistic infections, and catheter-site infections, some of which were life-threatening or fatal. Administer prophylactic antibiotics and employ surveillance testing as appropriate during treatment. Monitor patients for signs or symptoms of infection and treat appropriately, including interruption or discontinuation of BLINCYTO® as needed.
- Tumor Lysis Syndrome (TLS), which may be life-threatening or fatal, has been observed. Preventive measures, including pretreatment nontoxic cytoreduction and on-treatment hydration, should be used during BLINCYTO® treatment. Monitor patients for signs and symptoms of TLS and interrupt or discontinue BLINCYTO® as needed to manage these events.

BLINCYTO® (blinatumomab) for injection
35 mcg single-dose vial

In a retrospective study of BLINCYTO®, nearly all pediatric patients converted to MRD(–) and proceeded to HSCT without delay[3]

A multi-institutional, retrospective study to report outcomes using BLINCYTO® as bridging therapy prior to HSCT in 15 pediatric patients aged 0–21 years with MRD(+) B-cell precursor ALL[3,*]

- All patients[3] were in CR[†] at enrollment; one-third of patients (5/15) were in CR2
- More than half of patients (9/15) had unfavorable risk cytogenetic abnormalities[3,4,11]



of patients had no detectable MRD following BLINCYTO® bridging therapy[3]

- Median time from end of BLINCYTO® treatment to preparative regimen for HSCT was 14 days (range 1–35 days)[3]
  - All patients had successful neutrophil engraftment with a median time of 19 days (range 11–35 days)

- As this was a small study in 15 patients, there are ongoing trials investigating BLINCYTO® in MRD-positive patients[1,3]

*Length of BLINCYTO® treatment varied from a single 4-week dose for 3 patients receiving BLINCYTO®. 2 patients had their initial cycle of BLINCYTO® shortened to start HSCT preparative therapy (at days 18 and 20), and 1 patient received 2 courses for a total of 66 days.[3]

[†]Defined as < 5% blasts in the bone marrow.[3]

ALL, acute lymphoblastic leukemia; CR, complete remission; CR2, second complete remission; HSCT, allogeneic hematopoietic stem cell transplantation; MRD, minimal residual disease.

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

- Neutropenia and Febrile Neutropenia, including life-threatening cases, have been observed. Monitor appropriate laboratory parameters (including, but not limited to, white blood cell count and absolute neutrophil count) during BLINCYTO® infusion and interrupt BLINCYTO® if prolonged neutropenia occurs.

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Most common adverse reactions in the retrospective study[3]

Adverse events occurring in pediatric patients who received BLINCYTO® bridging therapy prior to transplant[3]	
Adverse reaction	**n (%)**
Grade 3 seizure‡	1 (7)
Grade 2 or 3 GVHD	2 (14)
Extensive chronic GVHD	3 (21)

- Causes of death were disease progression in one patient who did not proceed to HSCT and complications due to chronic GVHD in another patient[3]
- No other Grade 3 or 4 toxicities or CRS events were reported[3]
- No toxicities were reported as having delayed or prevented patients from receiving HSCT[3]

‡Single patient who experienced Grade 3 seizure (graded retrospectively) during BLINCYTO® therapy had CNS3 leukemia (> 5 blasts in the CSF at diagnosis/relapse) and had received CNS-directed medication associated with lowering the seizure threshold at the time of the event.[3]

CNS, central nervous system; CRS, cytokine release syndrome; CSF, cerebrospinal fluid; GVHD, graft-versus-host disease.

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

- Effects on Ability to Drive and Use Machines: Due to the possibility of neurological events, including seizures, patients receiving BLINCYTO® are at risk for loss of consciousness, and should be advised against driving and engaging in hazardous occupations or activities such as operating heavy or potentially dangerous machinery while BLINCYTO® is being administered.

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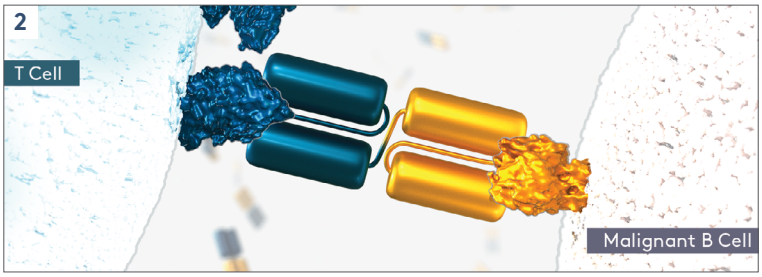
35 mcg single-dose vial

BLINCYTO® is the first and only BiTE® immunotherapy approved for use in patients with B-cell precursor ALL[1,12]

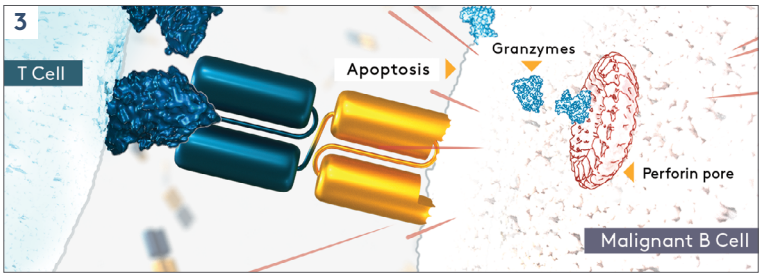
Target

BLINCYTO® targets malignant and benign B cells via the CD19 cell surface antigen while simultaneously engaging the patient's own T cells through the CD3 antigen.[12]



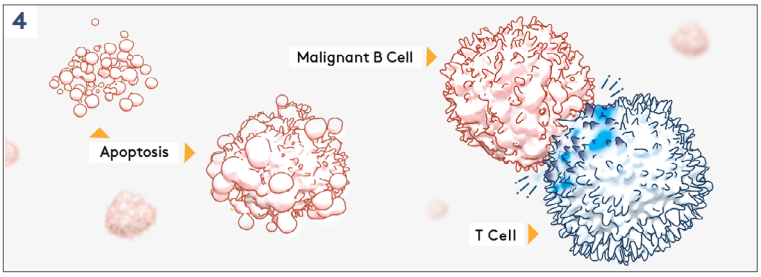
Activate

BLINCYTO® activates the T cell resulting in the formation of a synapse between the T cell and malignant B cell.[1,13]



Fight

The activated T cell then fights the malignant B cell by releasing perforin and granzymes through the perforin pore to induce apoptosis.[1,13,14]



Persist

The activated T cells persist in the blood stream, allowing for serial lysis of multiple target cells. Sustained activation of T cells results in local proliferation and enhanced polyclonal expansion of memory T cells, helping to fight cancer cells.[13,14]

IMPORTANT SAFETY INFORMATION

WARNING: CYTOKINE RELEASE SYNDROME and NEUROLOGICAL TOXICITIES

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- **Neurological toxicities, which may be severe, life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® as recommended.**

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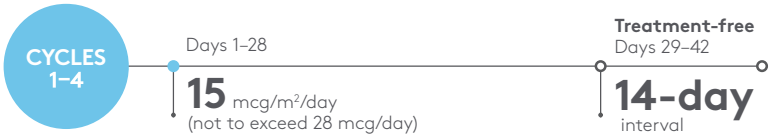
Dosing and administration for MRD(+) patients

A treatment course consists of 1 cycle for induction followed by up to 3 additional cycles for consolidation[1]

Fixed dosing for patients weighing ≥ 45 kg

BSA-based dosing for patients weighing < 45 kg



A single cycle of treatment with BLINCYTO® induction or consolidation consists of 28 days of continuous intravenous infusion followed by a 14-day treatment-free interval (total of 42 days)[1]

BLINCYTO® offers 3 infusion duration options, allowing you to customize a treatment plan that best fits your patients' needs[1]

Convenient 1-week bag is available[1,*]

Hospitalization is recommended[1] for the first 3 days of cycle 1 and the first 2 days of cycle 2

***7-day bag option is available for patients weighing ≥ 22 kg. 7-day infusion bags are not recommended for use in patients weighing < 22 kg due to the addition of the benzyl alcohol preservative.[1]**

ALL, acute lymphoblastic leukemia; BiTE, Bispecific T Cell Engager; BSA, body surface area; CD, cluster of differentiation; MRD, minimal residual disease.

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

- Risk of Serious Adverse Reactions in Pediatric Patients due to Benzyl Alcohol Preservative: Serious and fatal adverse reactions including "gasping syndrome," which is characterized by central nervous system depression, metabolic acidosis, and gasping respirations, can occur in neonates and infants treated with benzyl alcohol-preserved drugs including BLINCYTO® (with preservative). When prescribing BLINCYTO® (with preservative) for pediatric patients, consider the combined daily metabolic load of benzyl alcohol from all sources including BLINCYTO® (with preservative) and other drugs containing benzyl alcohol. The minimum amount of benzyl alcohol at which serious adverse reactions may occur is not known. Due to the addition of bacteriostatic saline, 7-day bags of BLINCYTO® solution for infusion with preservative contain benzyl alcohol and are not recommended for use in any patients weighing < 22 kg.

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35 mcg single-dose vial

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- **Neurological toxicities, which may be severe, life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® as recommended.**

Contraindications

BLINCYTO® is contraindicated in patients with a known hypersensitivity to blinatumomab or to any component of the product formulation.

Warnings and Precautions

- Cytokine Release Syndrome (CRS): CRS, which may be life-threatening or fatal, occurred in 15% of patients with R/R ALL and in 7% of patients with MRD-positive ALL. The median time to onset of CRS is 2 days after the start of infusion and the median time to resolution of CRS was 5 days among cases that resolved. Closely monitor and advise patients to contact their healthcare professional for signs and symptoms of serious adverse events such as fever, headache, nausea, asthenia, hypotension, increased alanine aminotransferase (ALT), increased aspartate aminotransferase (AST), increased total bilirubin (TBILI), and disseminated intravascular coagulation (DIC). The manifestations of CRS after treatment with BLINCYTO® overlap with those of infusion reactions, capillary leak syndrome, and hemophagocytic histiocytosis/macrophage activation syndrome. If severe CRS occurs, interrupt BLINCYTO® until CRS resolves. Discontinue BLINCYTO® permanently if life-threatening CRS occurs. Administer corticosteroids for severe or life-threatening CRS.
- Neurological Toxicities: Approximately 65% of patients receiving BLINCYTO® in clinical trials experienced neurological toxicities. The median time to the first event was within the first 2 weeks of BLINCYTO® treatment and the majority of events resolved. The most common (≥ 10%) manifestations of neurological toxicity were headache and tremor. Severe, life-threatening, or fatal neurological toxicities occurred in approximately 13% of patients, including encephalopathy, convulsions, speech disorders, disturbances in consciousness, confusion and disorientation, and coordination and balance disorders. Manifestations of neurological toxicity included cranial nerve disorders. Monitor patients for signs or symptoms and interrupt or discontinue BLINCYTO® as outlined in the PI.
- Infections: Approximately 25% of patients receiving BLINCYTO® in clinical trials experienced serious infections such as sepsis, pneumonia, bacteremia, opportunistic infections, and catheter-site infections, some of which were life-threatening or fatal. Administer prophylactic antibiotics and employ surveillance testing as appropriate during treatment. Monitor patients for signs or symptoms of infection and treat appropriately, including interruption or discontinuation of BLINCYTO® as needed.
- Tumor Lysis Syndrome (TLS), which may be life-threatening or fatal, has been observed. Preventive measures, including pretreatment nontoxic cytoreduction and on-treatment hydration, should be used during BLINCYTO® treatment. Monitor patients for signs and symptoms of TLS and interrupt or discontinue BLINCYTO® as needed to manage these events.
- Neutropenia and Febrile Neutropenia, including life-threatening cases, have been observed. Monitor appropriate laboratory parameters (including, but not limited to, white blood cell count and absolute neutrophil count) during BLINCYTO® infusion and interrupt BLINCYTO® if prolonged neutropenia occurs.
- Effects on Ability to Drive and Use Machines: Due to the possibility of neurological events, including seizures, patients receiving BLINCYTO® are at risk for loss of consciousness, and should be advised against driving and engaging in hazardous occupations or activities such as operating heavy or potentially dangerous machinery while BLINCYTO® is being administered.
- Elevated Liver Enzymes: Transient elevations in liver enzymes have been associated with BLINCYTO® treatment with a median time to onset of 3 days. In patients receiving BLINCYTO®, although the majority of these events were observed in the setting of CRS, some cases of elevated liver enzymes were observed outside the setting of CRS, with a median time to onset of 19 days. Grade 3 or greater elevations in liver enzymes occurred in approximately 7% of patients outside the setting of CRS and resulted in treatment discontinuation in less than 1% of patients. Monitor ALT, AST, gamma-glutamyl transferase, and TBILI prior to the start of and during BLINCYTO® treatment. BLINCYTO® treatment should be interrupted if transaminases rise to > 5 times the upper limit of normal (ULN) or if TBILI rises to > 3 times ULN.

- Pancreatitis: Fatal pancreatitis has been reported in patients receiving BLINCYTO® in combination with dexamethasone in clinical trials and the post-marketing setting. Evaluate patients who develop signs and symptoms of pancreatitis and interrupt or discontinue BLINCYTO® and dexamethasone as needed.
- Leukoencephalopathy: Although the clinical significance is unknown, cranial magnetic resonance imaging (MRI) changes showing leukoencephalopathy have been observed in patients receiving BLINCYTO®, especially in patients previously treated with cranial irradiation and antileukemic chemotherapy.
- Preparation and administration errors have occurred with BLINCYTO® treatment. Follow instructions for preparation (including admixing) and administration in the PI strictly to minimize medication errors (including underdose and overdose).
- Immunization: Vaccination with live virus vaccines is not recommended for at least 2 weeks prior to the start of BLINCYTO® treatment, during treatment, and until immune recovery following last cycle of BLINCYTO®.
- Risk of Serious Adverse Reactions in Pediatric Patients due to Benzyl Alcohol Preservative: Serious and fatal adverse reactions including "gasping syndrome," which is characterized by central nervous system depression, metabolic acidosis, and gasping respirations, can occur in neonates and infants treated with benzyl alcohol-preserved drugs including BLINCYTO® (with preservative). When prescribing BLINCYTO® (with preservative) for pediatric patients, consider the combined daily metabolic load of benzyl alcohol from all sources including BLINCYTO® (with preservative) and other drugs containing benzyl alcohol. The minimum amount of benzyl alcohol at which serious adverse reactions may occur is not known. Due to the addition of bacteriostatic saline, 7-day bags of BLINCYTO® solution for infusion with preservative contain benzyl alcohol and are not recommended for use in any patients weighing < 22 kg.

Adverse Reactions

- The most common adverse reactions (≥ 20%) in clinical trial experience of patients with MRD-positive B-cell precursor ALL (BLAST Study) treated with BLINCYTO® were pyrexia (91%), infusion-related reactions (77%), headache (39%), infections (pathogen unspecified [39%]), tremor (31%), and chills (28%). Serious adverse reactions were reported in 61% of patients. The most common serious adverse reactions (≥ 2%) included pyrexia, tremor, encephalopathy, aphasia, lymphopenia, neutropenia, overdose, device related infection, seizure, and staphylococcal infection.
- Adverse reactions that were observed more frequently (≥ 10%) in the pediatric population compared to the adults with relapsed or refractory B-cell precursor ALL were pyrexia (80% vs. 61%), hypertension (26% vs. 8%), anemia (41% vs. 24%), infusion-related reaction (49% vs. 34%), thrombocytopenia (34% vs. 21%), leukopenia (24% vs. 11%), and weight increased (17% vs. 6%).
- In pediatric patients less than 2 years old (infants), the incidence of neurologic toxicities was not significantly different than for the other age groups, but its manifestations were different; the only event terms reported were agitation, headache, insomnia, somnolence, and irritability. Infants also had an increased incidence of hypokalemia (50%) compared to other pediatric age cohorts (15-20%) or adults (17%).

Dosage and Administration Guidelines

- BLINCYTO® is administered as a continuous intravenous infusion at a constant flow rate using an infusion pump which should be programmable, lockable, non-elastomeric, and have an alarm.
- It is very important that the instructions for preparation (including admixing) and administration provided in the full Prescribing Information are strictly followed to minimize medication errors (including underdose and overdose).

INDICATION

BLINCYTO® is indicated for the treatment of B-cell precursor acute lymphoblastic leukemia (ALL) in first or second complete remission with minimal residual disease (MRD) greater than or equal to 0.1% in adults and children.

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.

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35 mcg single-dose vial

Choose BLINCYTO® to achieve MRD-negativity in your pediatric and AYA patients[1-3]

The first and only FDA-approved therapy for patients with MRD(+) B-cell precursor ALL[1,15]

81% (n=70/86) of the overall patient population in the BLAST study had no detectable MRD[1,2,*,†]

- Complete MRD response rates were similar across patient subgroups (age, relapse history, and MRD burden)[2]

91% (n=29/32) of AYA patients converted to MRD(–)*,‡ with BLINCYTO® in the BLAST study[2]

93% (n=14/15) of patients aged 0–21 years had no detectable MRD following BLINCYTO® bridging therapy in a retrospective study[3,§]

Go to **www.BLINCYTO.com** to learn more

*Assessed after 1 treatment cycle.[1]
†Defined as the absence of detectable MRD confirmed in an assay with a minimum sensitivity of 0.01% for 6 patients and ≤ 0.005% for 80 patients. Undetectable MRD was achieved by 65/80 patients with an assay sensitivity of at least 0.005%.[1]
‡Defined as no target amplification using real-time quantitative polymerase chain reaction with a minimum sensitivity of 0.01%.[2]
§A multi-institutional, retrospective study to report outcomes using BLINCYTO® as bridging therapy prior to HSCT in 15 pediatric patients with MRD(+) B-cell precursor ALL.[3]
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- **Cytokine Release Syndrome (CRS), which may be life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® and treat with corticosteroids as recommended.**
- **Neurological toxicities, which may be severe, life-threatening or fatal, occurred in patients receiving BLINCYTO®. Interrupt or discontinue BLINCYTO® as recommended.**

References: 1. BLINCYTO® (blinatumomab) prescribing information, Amgen. **2.** Gökbuget N, Dombret H, Bonifacio M, et al. Blinatumomab for minimal residual disease in adults with B-cell precursor acute lymphoblastic leukemia. *Blood*. 2018;131:1522-1531. **3.** Keating AK, Gossai N, Phillips CL, et al. Reducing minimal residual disease with blinatumomab prior to HCT for pediatric patients with acute lymphoblastic leukemia. *Blood Adv*. 2019;3:1926-1929. **4.** National Cancer Institute. Childhood Acute Lymphoblastic Leukemia Treatment (PDQ®)–Health Professional Version. https://www.cancer.gov/types/leukemia/hp/child-all-treatment-pdq. Accessed November 4, 2019. **5.** Borowitz MJ, Wood BL, Devidas M, et al. Prognostic significance of minimal residual disease in high risk B-ALL: a report from Children's Oncology Group study AALL0232. *Blood*. 2015;126:964-971. **6.** Berry DA, Zhou S, Higley H, et al. Association of minimal residual disease with clinical outcome in pediatric and adult acute lymphoblastic leukemia: a meta-analysis. *JAMA Oncol*. 2017;3:e170580. **7.** Bader P, Kreyenberg H, Henze GH, et al. Prognostic value of minimal residual disease quantification before allogeneic stem-cell transplantation in relapsed childhood acute lymphoblastic leukemia: the ALL-REZ BFM Study Group. *J Clin Oncol*. 2009;27:377-384. **8.** Elorza I, Palacio C, Dapena JL, et al. Relationship between minimal residual disease measured by multiparametric flow cytometry prior to allogeneic hematopoietic stem cell transplantation and outcome in children with acute lymphoblastic leukemia. *Haematologica*. 2010;95:936-941. **9.** Leung W, Pui CH, Coustan-Smith E, et al. Detectable minimal residual disease before hematopoietic cell transplantation is prognostic but does not preclude cure for children with very-high-risk leukemia. *Blood*. 2012;120:468-472. **10.** National Cancer Institute. Common Terminology Criteria for Adverse Events (CTCAE) version 4.0. https://evs.nci.nih.gov/ftp1/CTCAE/CTCAE_4.03/CTCAE_4.03_2010-06-14_QuickReference_8.5x11.pdf. Accessed November 6, 2019. **11.** Hunger SP, Mullighan CG. Redefining ALL classification: toward detecting high-risk ALL and implementing precision medicine. *Blood*. 2015;125:3977-3987. doi:10.1182/blood-2015-02-580043. **12.** Yuraszeck T, Kasichayanula S, Benjamin JE. Translation and clinical development of bispecific T-cell engaging antibodies for cancer treatment. *Clin Pharmacol Ther*. 2017;101:634-645. **13.** Baeuerle PA, Kufer P, Bargou R. BiTE: Teaching antibodies to engage T-cells for cancer therapy. *Curr Opin Mol Ther*. 2009;11:22-30. **14.** Nagorsen D, Baeuerle PA. Immunomodulatory therapy of cancer with T cell-engaging BiTE antibody blinatumomab. *Exp Cell Res*. 2011;317:1255-1260. **15.** Food and Drug Administration. FDA expands approval of Blincyto for treatment of a type of leukemia in patients who have a certain risk factor for relapse. https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm603151.htm. Accessed November 5, 2019.

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35 mcg single-dose vial