

Hematopoietic Cell Transplantation for Acute Lymphoblastic Leukemia

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Approved By:	Highmark Health Options – Market Leadership
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Products:	Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 5

Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Highmark Health Options may provide coverage under medical surgical benefits of the Company's Medicaid products for medically necessary hematopoietic cell transplantation for acute lymphoblastic leukemia.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness, or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

The qualifications of the policy will meet the standards of the National Committee for Quality Assurance (NCQA) and the Delaware Department of Health and Social Services (DHSS) and all applicable state and federal regulations.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently services Delaware Medicaid: Delaware Healthy Children Program (DHCP) and Diamond State Health Plan Plus members.

Acute lymphoblastic leukemia (ALL) – A heterogeneous disease with different genetic variations resulting in distinct biologic subtypes. Individuals are stratified to risk-adapted therapy according to certain clinical and genetic risk factors that predict outcome.

HCT – Involves the intravenous (IV) infusion of allogeneic (donor) or autologous stem cells to reestablish hematopoietic function in individuals whose bone marrow or immune system is damaged or defective. They can be harvested from bone marrow, peripheral blood, or umbilical cord blood and placenta shortly after delivery of neonates.

PROCEDURES

1. A prior authorization is required.

2. Pediatric all

Autologous or allogeneic HCT may be considered medically necessary to treat pediatric ALL when at least ONE of the following clinical criteria has been met:

- In first complete remission and at high risk of relapse; or
- In second or greater remissions or refractory ALL.

Allogeneic HCT may be considered medically necessary to treat relapsing ALL after a prior autologous HCT in pediatric individuals.

Autologous or allogeneic HCT not meeting the criteria as indicated in this policy is considered not medically necessary.

3. Adult all

Autologous HCT may be considered medically necessary to treat adult ALL in first complete remission but at high-risk of relapse.

Allogeneic HCT may be considered medically necessary to treat adult ALL when at least ONE of the following clinical criteria has been met:

- In first complete remission for any risk level; or
- In second or greater remission or with relapsed or refractory ALL; or
- In relapse after a prior autologous HCT.

Autologous HCT to treat adult ALL in second or greater remission or with refractory disease is considered experimental and investigational (E/I) and therefore noncovered because the safety and and/or effectiveness of this service cannot be established by the available peer-reviewed literature.

Autologous or allogeneic HCT not meeting the criteria as listed in this policy considered not medically necessary.

4. Reduced-intensity conditioning (RIC)

RIC allogeneic HCT may be considered medically necessary as a treatment for ALL in individuals who are in complete marrow and extramedullary first or second remission, and who, for medical reasons, would be unable to tolerate a standard myeloablative conditioning regimen.

RIC HCT not meeting the criteria as listed in this policy is considered not medically necessary.

5. Post-payment audit statement

The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Highmark Health Options at any time pursuant to the terms of your provider agreement.

6. Place of service: inpatient/outpatient

Experimental/investigational (E/I) services are not covered regardless of place of service.

Allogeneic and autologous hematopoietic stem-cell transplantation for acute lymphoblastic leukemia is typically an outpatient procedure which is only eligible for coverage as an inpatient procedure in special circumstances, including, but not limited to, the presence of a comorbid condition that would require monitoring in a more controlled environment such as the inpatient setting.

CODING REQUIREMENTS

CPT Codes	Description
38206	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; autologous.
38230	Bone marrow harvesting for transplantation.
38232	Bone marrow harvesting for transplantation; autologous.
38240	Hematopoietic progenitor cell (HPC); allogeneic transplantation per donor.
38241	Hematopoietic progenitor cell (HPC); autologous transplantation.
38242	Bone marrow or blood-derived peripheral stem cell transplantation; allogeneic done lymphocyte infusions.

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES: 38206, 38230, 38232, 38240, 38241, 38242

Code	Description
C91.00	Acute Lymphoblastic Leukemia not having achieved remission.
C91.01	Acute Lymphoblastic Leukemia, in remission.
C91.02	Acute Lymphoblastic Leukemia, in relapse.

REIMBURSEMENT

Participating facilities will be reimbursed per their Highmark Health Options contract.

POLICY SOURCES

National Comprehensive Cancer Network – 2020

Current National Comprehensive Cancer Network guidelines (v.2.2020) for ALL indicate allo-HCT is appropriate for consolidation treatment of most poor risk (e.g., the Philadelphia chromosome-positive, relapsed, or refractory) patients with ALL. The guidelines state that for appropriately fit older adults with ALL who are achieving remission, “consideration of autologous or reduced-intensity allogeneic stem cell transplantation may be appropriate.” In addition, the guidelines note that chronologic age is not a good surrogate for fitness for therapy and that patient should be evaluated on an individual basis. Current National Comprehensive Cancer Network guidelines (v.2.2020) for pediatric ALL say that “Allogeneic HSCT has demonstrated improved clinical outcomes in pediatric ALL patients with evidence of certain high-risk features and/or persistent disease. In addition, survival rates appear to be comparable

regardless of the stem cell source (matched related, matched unrelated, cord blood, or haploidentical donor)."

GUIDELINES FOR AUTOLOGOUS AND ALLOGENEIC HCT IN ALL

Indication	Children (Age < 18 Years)		Adults (Age ≥ 18 Years)	
	Allogeneic HCT	Autologous HCT	Allogeneic HCT	Autologous HCT
First complete response, standard-risk	N	N	S	C
First complete response, high-risk	S	N	S	N
Second complete response	S	N	S	C
At least third complete response	C	N	C	N
Not in remission	C	N	C	N

ALL: acute lymphoblastic; C: clinical evidence available; HCT: hematopoietic cell transplantation; N: not generally recommended; S: standard of care.

References

Chang J, Douer D, Aldoss I, et al. Combination chemotherapy plus dasatinib leads to comparable overall survival and relapse-free survival rates as allogeneic hematopoietic stem cell transplantation in Philadelphia positive acute lymphoblastic leukemia. *Cancer Med.* 2019;8(6):2832-2839.

DeFilipp Z, Advani AS, Bachanova V, et al. Hematopoietic cell transplantation in the treatment of adult acute lymphoblastic leukemia: Updated 2019 evidence-based review from the American Society for Transplantation and Cellular Therapy. *Biol Blood Marrow Transplant.* 2019;25(11):2113-2123.

Dinmohamed AG, Szabo A, van der Mark M, et al. Improved survival in adult patients with acute lymphoblastic leukemia in the Netherlands: a population-based study on treatment, trial participation and survival. *Leukemia.* 2016; 30(2):310-317.

El Fakih R, Ahmed S, Alfraih F, Hanbali A. Hematopoietic cell transplantation for acute lymphoblastic leukemia in adult patients. *Hematol Oncol Stem Cell Ther.* 2017;10(4):252-258.

Giebel S, Labopin M, Nagler A, et al. Improving results of allogeneic hematopoietic cell transplantation for adults with acute lymphoblastic leukemia in first complete remission: an analysis from the Acute Leukemia Working Party of the European Society for Blood and Marrow Transplantation. *Haematolog.* 2017;102(1):139-149.

InterQual® Level of Care Criteria 2019. Acute Care Adult. McKesson Health Solutions, LLC.

National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Acute lymphoblastic leukemia. Version 1.2021. Accessed April 27, 2021.

National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Pediatric Acute Lymphoblastic Leukemia. Version 2.2021. Accessed April 27, 2021.

Pavlu J, Labopin M, Zoellner AK, et al. Allogeneic hematopoietic cell transplantation for primary refractory acute lymphoblastic leukemia: A report from the Acute Leukemia Working Party of the EBMT. *Cancer*. 2017;123(11):1965-1970.

PDQ® Adult Treatment Editorial Board. PDQ Adult Acute Lymphoblastic Leukemia Treatment. Bethesda, MD: National Cancer Institute. Updated January 22, 2020. Accessed March 2, 2020.

PDQ® Pediatric Treatment Editorial Board. PDQ Childhood Acute Lymphoblastic Leukemia Treatment. Bethesda, MD: National Cancer Institute. Updated February 06, 2020. Accessed March 3, 2020.

Pui C-H, Rebora P, Schrappe M, et al. outcome of children with hypodiploid acute lymphoblastic leukemia: A retrospective multinational study. *J Clin Oncol*. 2019;37(10):770-779.

Rosko A, Wang HL, de Lima M, et al. Reduced intensity conditioned allograft yields favorable survival for older adults with B-cell acute lymphoblastic leukemia. *Am J Hematol*. 2016;92(1):42-49.

Santoro N, Ruggeri A, Labopin M, et al. Unmanipulated haploidentical stem cell transplantation in adults with acute lymphoblastic leukemia: a study on behalf of the Acute Leukemia Working Party of the EBMT. *J Hematol Oncol [serial online]*. 2017;10(1):113.

Yaniv I, Krauss AC, Beohou E, et al. Second hematopoietic stem cell transplantation for posttransplantation relapsed acute leukemia in children: A retrospective EBMT-PDWP study. *Biol Blood Marrow Transplant*. 2018;24(8):1629-1642.

POLICY UPDATE HISTORY

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