



MASSACHUSETTS

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Medical Policy

Donor Lymphocyte Infusion for Malignancies Treated with an Allogeneic Hematopoietic Cell Transplant

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Policy Number: 338

BCBSA Reference Number: 2.03.03A (For Plans internal use only)
NCD/LCD: N/A

Related Policies

None

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Donor lymphocyte infusion may be **MEDICALLY NECESSARY** following allogeneic-hematopoietic cell transplantation (HCT) that was originally considered medically necessary for the treatment of a hematologic malignancy that has relapsed or is refractory, to prevent relapse in the setting of a high risk of relapse, or to convert a patient from mixed to full donor chimerism.

Donor lymphocyte infusion is **INVESTIGATIONAL** following allogeneic-hematopoietic cell transplantation (HCT) that was originally considered investigational for the treatment of a hematologic malignancy.

Donor lymphocyte infusion is **INVESTIGATIONAL** as a treatment of nonhematologic malignancies following a prior allogeneic HCT.

Genetic modification of donor lymphocytes is **INVESTIGATIONAL**.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is not required .
Commercial PPO and Indemnity	Prior authorization is not required .
Medicare HMO Blue SM	Prior authorization is not required .
Medicare PPO Blue SM	Prior authorization is not required .

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

CPT codes:	Code Description
38242	Bone marrow or blood-derived peripheral stem cell transplantation; allogeneic donor lymphocyte infusions

Description

Approximately 40% to 60% of patients who receive a donor lymphocyte infusion (DLI) develop graft-versus-host disease (GVHD), and the development of GVHD predicts a response to the DLI. Treatment-related mortality after DLI is 5% to 20%. There does not seem to be a correlation between the type of hematologic malignancy for which the DLI is given and the development of GVHD.¹ The risk of developing GVHD is related, in part, to DLI dose and therapy before DLI.

DLI may be used for various indications such as relapse after allogeneic hematopoietic cell transplantation (HCT), to prevent disease **relapse in the setting of T cell-depleted grafts or nonmyeloablative conditioning regimens**, or to convert mixed to full donor chimerism. Management of relapse, which occurs in approximately 40% of all hematologic malignancy patients, is the most common indication for DLI.²

The literature is heterogeneous when reporting methods of cell collection, indication (eg, planned after chemotherapy, in early relapse), cell dose infused, and cell subtype used.¹ In addition, many studies include multiple diseases with little information on disease-specific outcomes; however, DLI is used in nearly all hematologic malignancies for which allogeneic HCT is performed, including chronic myeloid leukemia, acute myeloid and lymphoblastic leukemias, myelodysplastic syndromes, multiple myeloma, and Hodgkin and non-Hodgkin lymphoma.

Summary

Donor lymphocyte infusion (DLI), also called donor leukocyte or buffy-coat infusion, is a type of therapy in which T lymphocytes from the blood of a donor are given to a patient who has already received a hematopoietic cell transplant (HCT) from the same donor. The DLI therapeutic effect results from a graft-versus-leukemic or graft-versus-tumor effect due to recognition of certain antigens on the cancer cells by the donor lymphocytes and the resultant elimination of the tumor cells.

For individuals who have had an allogeneic HCT who receive DLI, the evidence includes nonrandomized comparative studies and case series. Relevant outcomes are overall survival and change in disease status. In various hematologic malignancies and for various indications such as planned or preemptive DLI, treatment of relapse, or conversion of mixed to full donor chimerism, patients have shown evidence of responding to DLI. Response rates to DLI for relapsed hematologic malignancies following an allogeneic HCT are best in chronic myelogenous leukemia (CML), followed by the lymphomas, multiple

myeloma, and acute leukemias, respectively. Other than CML, clinical responses are most effective when chemotherapy induction is used to reduce the tumor burden before DLI. The evidence is sufficient to determine qualitatively that the technology results in a meaningful improvement in the net health outcome.

For individuals who have had an allogeneic HCT who receive a modified (genetic or other ex vivo modification) donor lymphocytes infusion, the evidence includes case series. Relevant outcomes are overall survival and change in disease status. The case series have demonstrated the feasibility of the technique and no serious adverse effects. Without a comparison to standard treatment, the efficacy of administering modified donor lymphocytes is unknown. The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy History

Date	Action
4/2019	Prior authorization information clarified.
11/2016	Annual policy review. Hematopoietic stem cell transplantation was replaced with hematopoietic cell transplantation in the policy statements, title, and text.
3/2016	Annual policy review. New references added.
7/2015	Annual policy review. New references added.
2/2014	Clarified coding information.
6/2013	Annual policy review. New references added.
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
1/1/2012	New medical policy describing medically necessary and investigational indications. Effective 1/1/2012.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

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