Clinical Policy: Photopheresis (Extracorporeal Photochemotherapy)

Reference Number: HNCA.CP.MP.291
Effective Date: 09/06
Last Review Date: 03/22

Coding Implications
Revision Log

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

Description

Extracorporeal photochemotherapy (ECP), also called photopheresis, is a cell-based immunomodulatory therapy that involves collecting leukocytes from peripheral blood. These cells are exposed to a photosensitizing agent, 8-methoxypsoralen, and are then treated with ultraviolet radiation, after which they are re-infused. This procedure, which results in crosslinking of pyrimidine bases in DNA, produces massive apoptosis of the treated cells. The mechanism of action has not been fully elucidated, however, it is likely that photopheresis activates antigen-presenting cells, such that tumor-related antigens are more readily presented to cytoxic T cells.

Policy/Criteria

I. It is the policy of Health Net of California that extracorporeal photochemotherapy/photopheresis is **medically necessary** for the treatment of any of the following:

A. Advanced or refractory erythrodermic variants of cutaneous T-cell lymphoma (e.g., mycosis fungoides, Sézary's syndrome);
B. Treatment or prevention of acute or chronic graft-versus-host disease refractory to standard immunosuppressive therapy;
C. Heart or heart-lung transplant rejection when rejection episodes are refractory to high-dose steroids plus two or more of the following, unless contraindicated:
   1. Cyclosporine;
   2. Azathioprine;
   3. Methotrexate;
   4. Polyclonal and monoclonal antilymphocyte agents (e.g., antilymphocyte globulin ALG], antithymocyte globulin [ATG], OKT3 [monoclonal T-cell antibody]);
D. Lung transplant rejection in individuals who are refractory to or intolerant of standard therapy.

II. It is the policy of Health Net of California that extracorporeal photochemotherapy/photopheresis is not medically necessary or investigational for any other indication.

Background

ECP is a leukapheresis-based therapeutic procedure that has been approved by the US Food and Drug Administration (FDA) for the treatment of advanced cutaneous T-cell lymphoma (CTCL), a group of relatively uncommon T-cell non-Hodgkin lymphomas which begin in the skin as an itchy, red rash and can at times progress to involve lymph nodes, blood and visceral organs. Mycosis fungoides and its leukemic variant, Sézary syndrome, are neoplasias of malignant T-lymphocytes and are the most common types of cutaneous T-cell lymphoma; Mycosis fungoides

initially presents as skin involvement, with more frequent and extensive involvement of the peripheral blood, nodes and viscera as the disease progresses to Sézary syndrome. Many studies have demonstrated that ECP is of significant value in the treatment of CTCL. Because of the rarity of the disease and specialized delivery of therapy, there lacks prospective, placebo-controlled, randomized clinical trials that evaluate the impact of treatment on survival. There is no clear optimal therapy and the frequency of the treatments is determined by the clinical response. A typical ECP treatment schedule comprises two consecutive treatments every two weeks for three months, followed by two consecutive treatments every month until symptom resolution.

ECP is also an accepted treatment for graft-versus-host disease (GvHD). Acute and chronic GvHD are multisystem disorders that are common complications of allogeneic hematopoietic cell transplant. GvHD occurs when immune cells transplanted from a non-identical donor (the graft) recognize the transplant recipient (the host) as foreign, thereby initiating an immune reaction that causes disease in the transplant recipient. First-line therapy of GvHD consists of corticosteroids, whereas many therapeutic options have been reported for salvage therapy. Most of the evidence on the use of ECP in GvHD comes from patients with steroid-refractory disease and there is limited data regarding the use of ECP as a first-line therapy of GvHD.

ECP has also been investigated as a treatment in a variety of other conditions, including but not limited to, autoimmune diseases, type I diabetes, systemic sclerosis (scleroderma), hepatitis C infection, AIDS-related complex and Crohn's disease, however, the effectiveness of this treatment for these diagnoses has not been established.

National Comprehensive Care Network
ECP is a longstanding treatment for mycosis fungoides and is particularly indicated in patients with or who are at risk of blood involvement (erythrodermic stage III disease or IVA with Sézary's syndrome.)[1]

Coding Implications
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2015, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. 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.

CPT® Codes	Description
36522	Photopheresis, extracorporeal

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
C84.0-C84.09	Mycosis fungoides
C84.1-C84.19	Sezary disease
D89.810- D89.813	Graft-versus-host disease
T86.00 -.09	Complications of bone marrow transplant
T86.20 - .39	Complications of heart and heart-lung transplant
T86.810	Lung transplant rejection
Z94.1	Heart transplant status
Z94.2	Lung transplant status
Z04.3	Heart and lungs transplant status

Reviews, Revisions, and Approvals	Date	Approval Date
Policy adopted from Health Net NMP291 Photopheresis (Extracorporeal Photochemotherapy	02/17	
Added Medicare NCD and other reference, no change	2/18	3/18
No changes	3/19	3/19
No changes	3/20	3/20
Updated codes, no other changes	3/21	3/21
Updated references, no other changes	3/22	3/22

References

1. National Comprehensive Cancer Network (NCCN). Non-Hodgkin's Lymphoma . Version 2.2017
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3. Radojcic V, Pletneva MA, Couriel DR. The role of extracorporeal photopheresis in chronic graft-versus-host disease. Transfus Apher Sci. 2015 Apr;52(2):157-61. doi: 10.1016/j.transci.2015.02.002
4. Weber LL, Dunbar NM, Meehan KR, et al. Successful implementation of a rural extracorporeal photopheresis program for the treatment of cutaneous T-cell lymphoma and chronic graft-versus-host disease in a rural hospital. J Clin Apher. 2015 Dec;30(6):359-63. doi: 10.1002/jca.21382.
5. Kuzmina Z, Stroncek D, Pavletic SZ. Extracorporeal photopheresis as a therapy for autoimmune diseases. J Clin Apher. 2015 Aug;30(4):224-37. doi: 10.1002/jca.21367
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10. Knobler R, Berlin G, Calzavara-Pinton P, et al. Guidelines on the use of extracorporeal photopheresis. J Eur Acad Dermatol Venereol. 2014 Jan; 28(Suppl 1): 1–37.
11. Flowers ME, Apperley JF, van Besien K. A multi-center prospective phase 2 randomized study of extracorporeal photopheresis for treatment of chronic graft-versus-host disease. Blood. 2008;112:2667–74.
12. Kaner RJ, Zappetti D. Pulmonary complications after allogeneic hematopoietic cell transplantation. UpToDate Waltham, MA.
13. CMS National Coverage Determinations (NCDs) NCD 110.4 Extracorporeal Photopheresis

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.

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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.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.