

**Subject:** Extracorporeal Photopheresis

**Medical Policy #:** 5.7

**Status:** Reviewed

**Original Effective Date:** 03/25/2009

**Last Review Date:** 05/24/2023

## Disclaimer

Refer to the member's specific benefit plan and Schedule of Benefits to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

## Description

Extracorporeal photopheresis is a medical procedure in which a patient's white blood cells are exposed first to a drug called 8-methoxypsoralen (8-MOP) and then to ultraviolet A (UVA) light. The procedure starts with the removal of the patient's blood, which is centrifuged to isolate the white blood cells. The drug is typically administered directly to the white blood cells after they have been removed from the patient (referred to as ex vivo administration); after UVA light exposure, the treated white blood cells are then re-infused into the patient.

The exact mechanism of action of extracorporeal photopheresis is still elusive. The role of UVA is to activate the normally inert 8-MOP. The activated 8-MOP molecules bind with the DNA of the white blood cells, which kills the cells. The dead white blood cells, once re-infused into the patient, stimulate the multiple different cells and proteins of the patient's immune system in a series of cascading reactions. This activation of the immune system then impacts the medical condition being treated; however, the precise manner in which the medical condition is affected is still largely unknown but is believed to vary by condition. Hence, extracorporeal photopheresis is a procedure that attempts to negatively impact the ability of specific immune cells to function but without inducing a general state of immunosuppression.

For Photodynamic Therapy (PDT), see **MPM 16.9**.

## Coverage Determination

**Prior Authorization is not required. Log on to Pres Online to verify and/or submit a request:**

<https://ds.phs.org/preslogin/index.jsp>

**The following coverage detail includes Medicare, Commercial and Centennial.**

Extracorporeal photopheresis (also known as extracorporeal photochemotherapy) are considered under the following circumstances:

1. Palliative treatment of skin variants of cutaneous T cell lymphoma (e.g., mycosis fungoides, Sezary syndrome), that has not responded to other therapy.
2. When refractory to immunosuppressive drug treatment for the following:
  - a. Acute cardiac allograft rejection such as resistant or dependent to high-dose steroids and refractory to two or more of the following drugs, (unless contraindicated): azathioprine (Imuran), cyclosporine, methotrexate, and/or antibody-drugs polyclonal and monoclonal antilymphocyte agents like anti-lymphocyte globulin (ALG) and anti-thymocyte globulin (ATG)
  - b. Rejection of (bronchiolitis obliterans) of lung transplants, Resistant to more than two of the following, (unless contraindicated); azathioprine, cyclosporine, tacrolimus (Protopic/Prograf), and/or anti-body-drugs polyclonal and monoclonal anti-lymphocyte agents (e.g., ALG and ATG) or when the member has a rapid decline in lung function.
  - c. Graft-versus-host disease (GVHD) of an allogeneic bone marrow or stem cell transplant is resistant to standard immunosuppressive drug treatment.
  - d. As a last resort treatment of rejection of other solid organ transplants, when the disease is resistant to standard immunosuppressive drug treatment.

### **Non-Covered**

PHP considers the use of ECP experimental and investigational as a treatment for the following listed conditions:

- Atopic dermatitis
- Scleroderma and other Autoimmune diseases
- Bronchiolitis obliterans syndrome after allogeneic stem cell transplantation
- Bullous pemphigoid
- Crohn's disease
- Epidermolysis bullosa acquisita
- Morphea (localized scleroderma)

Not every Presbyterian health plan contains the same benefits. Please refer to the member's specific benefit plan and Schedule of Benefits to determine coverage [MPMPPC051001].

- Multiple sclerosis
- Nephrogenic systemic fibrosis (previously known as nephrogenic fibrosing dermopathy)
- Pemphigus vulgaris
- Pityriasis rubra pilaris
- Prophylaxis (prevention) of graft-versus-host disease following allogeneic hematopoietic cell transplantation
- Prophylactic use to reduce the risk of infective complications following kidney transplantation
- Scleroedema adutorum Buschke
- Stage 0-p bronchiolitis obliterans syndrome
- Systemic sclerosis (scleroderma)
- Type 1 diabetes
- Xanthogranulomas

## Coding

The coding listed in this medical policy is for reference only. Covered and non-covered codes are within this list.

### Current Procedural Terminology (CPT) Codes

CPT Codes	Description
36522	Photopheresis, extracorporeal

## Reviewed by / Approval Signatures

**Clinical Quality & Utilization Mgmt. Committee:** [Gray Clarke MD](#)

**Senior Medical Director:** [David Yu MD](#)

**Medical Director:** [Ana Maria Rael, MD](#)

**Date Approved:** 05-24-2023

## References

1. Medicare National Coverage Determinations Manual, Chapter 1, Part 2, section (NCD:110.4), Extracorporeal Photopheresis, last updated 07-25-17 with revision # 3. [Cited 03-10-2023]
2. CMS Manual System, Pub 100-20 One-Time Notification, Transmittal (TN 2427), Change Request ([CR11491](#)), Date: February 04, 2020. [Cited 03-10-2023]
3. CMS Manual, [Pub 100-20 One-Time Notification, Transmittal 2427, Change Request 11491](#), February 04, 2020. [Cited 03-10-2023]
4. Aetna, Extracorporeal Photochemotherapy (Photopheresis), #0241, Last Reviewed: 02-23-2023. [Cited 03-10-2023]
5. MCG, Apheresis, Therapeutic, A-073, 27<sup>th</sup> Edition, [03-10-2023]

## Publication History

- 03-25-09: Original effective date
- 02-09-10: Coding update, no changes to coverage policy
- 08-24-11: Annual Review
- 01-29-14: Annual Review
- 09-27-17: Annual Review, Accessed NCD 110.4 on 08-15-17- No policy-related changes are included with these updates.
- 01-23-19: Annual Review. No policy related changes
- 05-20-20: Annual Review. Reviewed by PHP Medical Policy Committee on 04/01/2020 agreed on the removal of NCD 110.4 and to develop our policy to reflect other payers for all product lines. No PA required- remains unchanged. Decision is based on the financial report that shows low impact that safely allows an additional coverage that NCD 110.4 does not offer, which includes treatment of other solid organ transplants
- 05-26-21: Annual Review. Reviewed by PHP Medical Policy Committee on 05/12/2021. No change in criteria, will continue coverage comparable to other payors. Removed unrelated transplant preparation CPT® codes from policy: 38204, 38205, 38206, 38207, 38208, 38209, 38210, 38211, 38212, 38213, 38214, 38215, 38220, 38221, 38222, 38230, 38240. Only 36522 is appropriate for Extracorporeal Photopheresis (MPM 5.7). The code was erroneously applied to MPM 16.11 in the past and since been removed from that policy on the last update on 11/18/20 but missed to update to remove 36522 from the PA grid under MPM 16.11. Continue no PA requirement for 36522 for this policy, since it has low utilization.
- 05-25-22: Annual Review. Reviewed by PHP Medical Policy Committee on 05-06-2022. Continue to use the internal criteria developed from other payers and NCD 110.4. Continue no PA requirement for 36522, since the utilization of diagnoses are appropriate.
- 05-24-23: Annual review. Reviewed by PHP Medical Policy Committee on 03-10-2023. No change to criteria developed from combining NCD 110.4 and other Commercial payers. The ICD-10 section was removed since the listing of the ICD-10 codes are for Medicare and it may limit coverage for other lines of business. Continue no PA

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requirement for 36522, since it has low potential for abuse.

*This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. The Medical Policy is not a treatment guide and should not be used as such.*

*For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available online at: [Click here for Medical Policies](#)*

**Web links:**

*At any time during your visit to this policy and find the source material web links has been updated, retired or superseded, PHP is not responsible for the continued viability of websites listed in this policy.*

*When PHP follows a particular guideline such as LCDs, NCDs, MCG, NCCN etc., for the purposes of determining coverage; it is expected providers maintain or have access to appropriate documentation when requested to support coverage. See the References section to view the source materials used to develop this resource document.*