POLICY STATEMENT:

I. Based upon our criteria and assessment of the peer-reviewed literature, extracorporeal photochemotherapy/photopheresis has been medically proven to be effective and therefore medically appropriate for the following indications:

A. Palliative treatment of the skin manifestations of cutaneous T-cell lymphoma (also called mycosis fungoides) or Sezary syndrome that have not responded to other therapy; or
B. Chronic extensive graft versus host disease (GVHD) that is refractory to conventional therapy; or
C. Cardiac allograft rejection that is recurrent or refractory to immunosuppressive treatment.

II. Based upon our criteria and assessment of the peer-reviewed literature the use of extracorporeal photochemotherapy has not been medically proven to be effective and therefore is considered investigational for all other indications, including, but not limited to, the treatment of:

A. Acute or chronic GVHD in previously untreated patients or those responding to conventional therapy;
B. Acute GVHD that is refractory to conventional therapy;
C. Lyme disease;
D. Scleroderma (a.k.a. progressive systemic sclerosis (PSS), systemic sclerosis (SS), dermatosclerosis, or CREST syndrome);
E. Autoimmune diseases (e.g., pemphigus vulgaris, pemphigus foliaceus, psoriatic arthritis, rheumatoid arthritis, systemic lupus erythematosus);
F. Crohn’s disease;
G. Allograft rejections of solid organs other than the heart; or
H. Diabetes Mellitus.

Refer to Corporate Medical Policy #11.01.03 regarding Experimental and Investigational Services.

POLICY GUIDELINES:

The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus, these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity for those contracts.

DESCRIPTION:

Extracorporeal photochemotherapy (ECP), or photopheresis, is an immune-modulating therapy technique used in the treatment of certain skin disorders. It involves an oral intake of 8-methoxypsoralen (8-MOP) and cytopheresis or addition of 8-MOP to the cells after removal, followed by ultraviolet actinotherapy (UVA) irradiation and reinfusion of leukocytes into the patient.

RATIONALE:

The FDA approved marketing of the THERAKOS UVAR Photopheresis System in 1987 for use in the palliative treatment of the skin manifestations of cutaneous T-cell lymphoma in persons who have not responded to other therapy. Treatment of GVHD is considered an off-label use of the device. Methoxsalen capsules and sterile solution are approved
by the FDA for administration in combination with photopheresis for the indications approved for the UVAR photopheresis system. Therefore, their use for treatment of autoimmune disease is considered off-label use.

Long term follow-up data demonstrates that extracorporeal photochemotherapy provides significant disease remission and prolongation of life in patients with cutaneous T-cell lymphoma and Sézary syndrome. 50-83% of patients with CTCL demonstrated clinical cutaneous improvements with 18-25% showing a complete response. The long-term follow-up of patients with Sézary syndrome show an average survival time of greater than 100 months, compared to survival times of 30-40 months of patients treated with other therapies.

Extracorporeal photochemotherapy has also been effective in the reversal of GVHD. Studies focusing on patients with chronic GVHD unresponsive to other therapies reported resolution or marked improvement of lesions in about 50% of patients.

Scleroderma is the most studied of the autoimmune diseases utilizing photopheresis, but the efficacy of photopheresis for these diseases, as yet, has not been demonstrated in well-designed clinical trials.

Photopheresis alone, or in combination with immunosuppressive therapy is also being investigated in the treatment of solid organ transplant rejection. While ECP has been utilized for prevention of cardiac allograft rejection and acute rejection, the strongest evidence in cardiac transplant patients revolves around its use for recurrent and refractory allograft rejection. While the data is comprised of nonrandomized studies the outcomes form these studies provide consistent evidence for a beneficial effect of ECP for cardiac transplant patients with rejection refractory to standard therapy. There is insufficient evidence to support the use of ECP for graft rejection in other solid organs such as lung, liver and kidney. Though preliminary results are promising, additional studies with longer follow-up are needed to evaluate the ultimate effect of photopheresis on patient survival.

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**REFERENCES:**


*Proprietary Information of Excellus Health Plan, Inc.*

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*BlueCross BlueShield Association Technology Evaluation Center (TEC). Extracorporeal photopheresis for the treatment of autoimmune disease. 2001 Nov;16(10).

*BlueCross BlueShield Association Technology Evaluation Center (TEC). Extracorporeal photopheresis for graft-versus-host disease. 2001 Nov;16(9).


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*key articles

**KEY WORDS:**
Graft Versus Host Disease, Mycosis fungoides, Sezary syndrome, T-cell lymphoma.

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**CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS**

There is currently a National Coverage Determination (NCD) for extracorporeal photopheresis. Please refer to the following NCD website for Medicare Members: http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=113&ncdver=3&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York++Upstate&CptHcpcsCode=36514&bc=gAAAAABAAAAA&