



**BlueCross BlueShield
of Alabama**

******For PUVA therapy, please see NCD250.1******

Name of Blue Advantage Policy:
Light Therapy for Psoriasis

Policy #: 009
Category: Medical

Latest Review Date: December 2020
Policy Grade: B

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
 - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
 - *Furnished in a setting appropriate to the patient's medical needs and condition;*
 - *Ordered and furnished by qualified personnel;*
 - *One that meets, but does not exceed, the patient's medical need; and*
 - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Effective for dates of service on or after May 21, 2016:

Blue Advantage will treat targeted phototherapy for treatment of localized psoriasis as a covered benefit when:

1. Treatment is for localized, symptomatic psoriasis of the hands, feet, knees, elbows, scalp, or face and conventional treatment has failed. Conventional treatment may include sunlight, topical steroids, coal tar preparations, calcipotriene (Dovonex[®]), vitamin A (Tazarotene[®]), Anthralin[®], salicylic acid, and other forms of light therapy. For conventional treatment to be considered a failure an adequate trial of the therapy should be documented.
2. Total treatment area should be no more than **20%** of body surface.
3. May be used to treat resistant lesions.
4. No more than 10 sessions per course of treatment. A session should include all areas treated on a day.
5. An additional course of treatment may be necessary if the patient's psoriasis responded positively to the initial course of treatment and then worsened over time.

*****For PUVA therapy, please see NCD250.1*****

Blue Advantage will treat Psoralen plus ultraviolet A (PUVA) as a covered benefit for the treatment of severe, disabling psoriasis, which is not responsive to other forms of conservative therapy (e.g. topical corticosteroids, coal/tar preparations, and ultraviolet light).

Blue Advantage will treat ultraviolet B with the addition of topical coal tar (also known as Goeckerman treatment) or petrolatum as a covered benefit for severe psoriasis (defined as psoriasis that affects more than 10% of the body surface area).

Blue Advantage will treat ultraviolet B with the addition of topical coal tar (also known as Goeckerman treatment) or petrolatum as a non-covered benefit and as investigational for all other indications.

Blue Advantage will treat ultraviolet B light therapy administered in the home as a covered benefit for coverage of the following conditions and when conducted under a physician's supervision with regularly scheduled exams:

- Psoriasis-mild to moderate forms when standard treatment has failed
- Severe psoriasis

Blue Advantage will treat targeted phototherapy as the first-line treatment of mild psoriasis as a non-covered benefit and as investigational.

Blue Advantage will treat target phototherapy for the treatment of generalized psoriasis or psoriatic arthritis as a non-covered benefit and as investigational.

Refer to Blue Advantage policy #301, Phototherapy for the Treatment of Skin Disorders, for laser phototherapy (excimer laser) for the treatment of vitiligo.

Effective for dates of service on or after September 2, 2011 and prior to May 21, 2016:

Blue Advantage will treat targeted phototherapy for treatment of localized psoriasis as a covered benefit when:

1. Treatment is for localized, symptomatic psoriasis of the hands, feet, knees, elbows, scalp, or face and conventional treatment has failed. Conventional treatment may include sunlight, topical steroids, coal tar preparations, calcipotriene (Dovonex[®]), vitamin A (Tazarotene[®]), Anthralin[®], salicylic acid, and other forms of light therapy. For conventional treatment to be considered a failure an adequate trial of the therapy should be documented.
2. Total treatment area should be no more than **20%** of body surface.
3. May be used to treat resistant lesions.
4. No more than 10 sessions per course of treatment. A session should include all areas treated on a day.
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Blue Advantage will treat targeted phototherapy as the first-line treatment of mild psoriasis as a non-covered benefit and as investigational.

Blue Advantage will treat target phototherapy for the treatment of generalized psoriasis or psoriatic arthritis as a non-covered benefit and as investigational.

Refer to Blue Advantage policy #301, Phototherapy for the Treatment of Skin Disorders, for laser phototherapy (excimer laser) for the treatment of vitiligo.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Light therapy for psoriasis includes both targeted phototherapy and photochemotherapy with psoralen plus ultraviolet A (PUVA). Targeted phototherapy describes the use of ultraviolet light that can be focused on specific body areas or lesions. PUVA uses a psoralen derivative in conjunction with long wavelength ultraviolet A (UVA) light (sunlight or artificial) for photochemotherapy of skin conditions.

Psoriasis

Psoriasis is a common chronic immune-mediated disease characterized by skin lesions ranging from minor localized patches to complete body coverage. There are several types of psoriasis; most common is plaque psoriasis, which is associated with red and white scaly patches on the skin. In addition to being a skin disorder, psoriasis can negatively impact many organ systems and is associated with an increased risk of cardiovascular disease, some types of cancer, and autoimmune diseases (eg, celiac disease, Crohn disease). Although disease severity is minimally defined by body surface area (mild psoriasis affects 10% of body surface area), lesion characteristics (eg, location and severity of erythema, scaling, induration, pruritus) and impact on QOL are also taken into account.

Treatment of Psoriasis

Topical therapy (e.g., corticosteroids, vitamin D analogs) is generally considered to be first-line treatment of psoriasis, especially for mild disease. Phototherapy and systemic therapy are treatment options for patients with more extensive and/or severe disease and those who fail conservative treatment with topical agents. Phototherapy is available in various forms including exposure to natural sunlight, use of broadband ultraviolet B (BB-UVB) devices, narrowband (NB-UVB) devices and psoralen plus ultraviolet A (PUVA). This policy addresses 2 treatments: PUVA and targeted phototherapy, i.e., use of ultraviolet light that can be focused on specific body areas or lesions.

Psoralen plus Ultraviolet A

Psoralens with UVA (PUVA) uses a psoralen derivative in conjunction with long-wavelength UVA light (sunlight or artificial) for photochemotherapy of skin conditions. Psoralens are tricyclic furocoumarin that occur in certain plants and can also be synthesized. They are available in oral and topical forms. Oral PUVA is generally given 1.5 hours before exposure to UVA radiation. Topical PUVA therapy refers to directly applying the psoralen to the skin with subsequent exposure to UVA light. Bath PUVA is used in some European countries for generalized psoriasis, but the agent used, trimethylpsoralen, is not approved by the U.S. Food and Drug Administration (FDA). Paint and soak PUVA are other forms of topical application of psoralen and are often used for psoriasis localized to the palms and soles. In paint PUVA, 8-methoxypsoralen (8-MOP) in an ointment or lotion form is put directly on the lesions. With soak PUVA, the affected areas of the body are placed in a basin of water containing psoralen. With topical PUVA, UVA exposure is generally administered within 30 minutes of psoralen application.

PUVA has most commonly been used to treat severe psoriasis, for which there is no generally accepted first-line treatment. Each treatment option (e.g., systemic therapies such as methotrexate, phototherapy, biologic therapies, etc.) has associated benefits and risks. Common

minor toxicities associated with PUVA include erythema, pruritus, irregular pigmentation, and gastrointestinal tract symptoms; these generally can be managed by altering the dose of psoralen or UV light. Potential long-term effects include photoaging and skin cancer, particularly squamous cell carcinoma (SCC) and possibly malignant melanoma. PUVA is generally considered more effective than targeted phototherapy for the treatment of psoriasis. However, the requirement of systemic exposure and the higher risk of adverse reactions (including a higher carcinogenic risk) have generally limited PUVA therapy to patients with more severe cases.

Targeted Phototherapy

Potential advantages include the ability to use higher treatment doses and to limit exposure to surrounding tissue. Broadband (BB)-UVB devices, which emit wavelengths from 290 to 320 nm have been largely replaced by narrowband (NB)-UVB devices. NB-UVB devices eliminate wavelengths below 296 nm, which are considered erythemogenic and carcinogenic but not therapeutic. NB-UVB is more effective than BB-UVB and approaches PUVA in efficacy. Original NB-UVB devices consisted of a Phillips TL-01 fluorescent bulb with a maximum wavelength (λ max) at 311 nm. Subsequently, xenon chloride (XeCl) lasers and lamps were developed as targeted NB-UVB treatment devices; they generate monochromatic or very narrow band radiation with a λ max of 308 nm. Targeted phototherapy devices are directed at specific lesions or affected areas, thus limiting exposure to the surrounding normal tissues. They may therefore allow higher dosages compared to a light box, which could result in fewer treatments to produce clearing. The original indication of the excimer laser was for patients with mild to moderate psoriasis, defined as involvement of less than 10% of the skin. Newer XeCl laser devices are faster and more powerful than the original models, which may allow the treatment of patients with more extensive skin involvement, 10–20% of body surface area.

KEY POINTS:

This policy is regularly updated with the most recent literature review through October 20, 2020.

Summary of Evidence

For individuals who have mild localized psoriasis, the evidence is lacking on the use of targeted phototherapy. Relevant outcomes are symptoms, change in disease status, quality of life (QOL), and treatment-related morbidity. The American Academy of Dermatology does not recommend phototherapy for patients with mild localized psoriasis whose disease can be controlled with topical medications. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have mild psoriasis that is resistant to topical medications who receive targeted phototherapy, the evidence includes some small ($N < 60$) within-subject studies. The relevant outcomes are symptoms, change in disease status, QOL, and treatment-related morbidity. Studies show that targeted phototherapy can improve mild localized psoriasis that has not responded to topical treatment. Targeted phototherapy is presumed to be safer or at least no riskier than whole body phototherapy, due to risks of exposing the entire skin to the carcinogenic effects of UVB light. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have moderate-to-severe localized psoriasis who receive targeted phototherapy, the evidence includes systematic reviews of small ($N \leq 25$) controlled trials (randomized controlled trials [RCTs] and non-RCTs). Relevant outcomes are symptoms, change in disease status, QOL, and treatment-related morbidity. Systematic reviews of small controlled trials in patients with moderate-to-severe psoriasis have found that targeted phototherapy has efficacy similar to whole-body phototherapy. Targeted phototherapy is presumed to be safer or at least no riskier than whole body phototherapy, due to risks of exposing the entire skin to the carcinogenic effects of UVB light. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have generalized psoriasis who receive PUVA, the evidence includes RCTs and systematic reviews of RCTs. Relevant outcomes are symptoms, change in disease status, QOL, and treatment-related morbidity. The available evidence demonstrates that PUVA is more effective than narrow band-UVB phototherapy, topical steroids, or ultraviolet A without psoralens in patients with generalized psoriasis. Due to side effects, PUVA is typically restricted to more severe cases. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

Practice Guidelines and Position Statements

American Academy of Dermatology

The American Academy of Dermatology 2010 guideline on the management of psoriasis recommended patients with psoriasis who are compliant could, under dermatologist supervision, be considered appropriate candidates for home UVB therapy. Targeted phototherapy was recommended for patients with mild, moderate, or severe psoriasis with less than 10% involvement of the body surface area. Systematic PUVA with ultraviolet A is indicated in adults with generalized psoriasis who are resistant to topical therapy.

National Psoriasis Foundation

In 2017, the National Psoriasis Foundation published a consensus guidance based on a task force review of the literature on the treatment for psoriasis involving skinfolds (inverse or intertriginous) psoriasis. The treatment guidance for intertriginous or genital psoriasis stated: "...there is anecdotal evidence demonstrating the strong clinical efficacy of biologic treatment; with limited knowledge on the effects of biologics on intertriginous or genital psoriasis." The guidance on inverse psoriasis is provided in Table 2.

Table 2. Recommendations on Treatment of Inverse Psoriasis

Line of Therapy	Recommendation
First-line therapy	Low potency topical steroids for periods less than 2-4 wks
	Other topical therapies to consider are tacrolimus, pimecrolimus, calcitriol, or

	calcipotriene to avoid steroid side effects with long-term treatment
Second- and third-line therapies	Antimicrobial therapy, emollients, and tar-based products
	Axillary involvement can be treated with botulinum toxin injection to reduce perspiration and inhibit inflammatory substance release
	Excimer laser therapy or systemic agents

In 2017, the National Psoriasis Foundation also published recommendations based on a review of the literature on the treatment for psoriasis in solid organ transplant patients. Because organ transplant patients are excluded from randomized controlled trials, there are limited data. The recommendations were based on case series (see Table 3).

Table 3 Recommendations on Treatment of Psoriasis for Solid Organ Transplant Patients

Line of Therapy	Recommendation
First-line therapy for mild-to-moderate psoriasis	Topical therapy
First-line therapy for moderate-to-severe psoriasis	Acitretin with narrowband ultraviolet light or Narrowband ultraviolet light or Acitretin
Second-line therapy	Increasing the current anti-rejection drug dose
Severe psoriasis or refractory cases	Systemic or biologic therapies

American Academy of Dermatology – National Psoriasis Foundation

The AAD and NPF joint guidelines (2019) on the management and treatment of psoriasis with phototherapy give strong recommendations for the use of targeted UVB (Table 4).

Table 4. AAD-NPF Strength of Recommendations for Targeted UVB

No.	Recommendation	Strength
3.1	Targeted UVB phototherapy, including	A

	excimer laser, excimer light, and targeted NB-UVB light, for use in adults with localized plaque psoriasis, for individual lesions, or in patients with more extensive disease	
3.2	For maximal efficacy, treatment with targeted UVB phototherapy for adults with localized plaque psoriasis should be carried out 2-3 times/wk rather than once every 1-2 wk	A
3.3	The starting dose for targeted UVB phototherapy for adults with localized plaque psoriasis can be determined on the basis of the MED or by a fixed-dose or skin phototype protocol	A
3.4	An excimer laser is more efficacious than an excimer light, which is more efficacious than localized NB-UVB light for the treatment of localized plaque psoriasis in adults	B
3.5	Recommend targeted UVB phototherapy, including excimer laser and excimer light, for use in adults with plaque psoriasis, including palmoplantar psoriasis	A
3.6	Excimer laser may be combined with topical corticosteroids in the treatment of plaque psoriasis in adults	B
3.7	Recommend excimer laser in the treatment of scalp psoriasis in adults	B

Table adapted from Elmets et al (2019).

NB-UVB: narrowband ultraviolet B; UVB: ultraviolet B.

The guidelines state of home NB-UVB therapy that evidence shows similar results regarding efficacy, quality of life, and side effects between patients with mild-to-severe psoriasis who received home treatments and those who received treatments at hospitals. In addition, home

treatment was found to significantly lessen the burden on patients who had to travel to a phototherapy center.

U.S. Preventive Services Task Force Recommendations

Not applicable.

KEY WORDS:

XTRAC laser, Surgilight EX-308, excimer laser, UVB, narrow band UVB, psoriasis, laser phototherapy, Levia Personal Targeted Phototherapy®, ultraviolet light therapy, UVA, photochemotherapy, psoralen plus ultraviolet A, PUVA, ultraviolet A

APPROVED BY GOVERNING BODIES:

In 2001, an XeCl excimer laser (XTRAC® by PhotoMedex) received 510(k) clearance from the U. S. Food and Drug Administration (FDA) for the treatment of mild to moderate psoriasis. The 510(k) clearance has subsequently been obtained for a number of targeted UVB lamps and lasers, including newer versions of the XTRAC system including the XTRAC Ultra™, the VTRAC™ lamp (PhotoMedex), the BCclear™ lamp (Lumenis), and the European manufactured Excilite™ and Excilite μ™ XeCl lamps.

In 2010, the Levia Personal Targeted Phototherapy® UVB device (Daavlin Co., Bryan, OH previously manufactured by Lerner Medical Devices, Los Angeles, CA) was cleared by FDA for home treatment of psoriasis.

The oral psoralen products Oxsoralen-Ultra (methoxsalen soft gelatin capsules) has been approved by the FDA and is made by Bausch Health; a generic product is also available from various manufacturers. Topical psoralen products (Oxsoralen; Valeant Pharmaceuticals) and methoxsalen hard gelatin capsules have been discontinued. Injectable methoxsalen is available but not used for psoriasis.

BENEFIT APPLICATION:

Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

CODING:

CPT codes:

96900	Actinotherapy (ultraviolet light)
96910	Photochemotherapy; tar and ultraviolet B (Goeckerman treatment) or petrolatum and ultraviolet B

96912	Photochemotherapy; psoralens and ultraviolet A
96913	Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least four to eight hours of care under direct supervision of the physician (includes application of medications and dressings)
96920	Laser treatment for inflammatory skin disease (psoriasis); total area less than 250 sq cm
96921	; 250 sq cm to 500 sq cm
96922	; over 500 sq cm

HCPCS:

E0691	Ultraviolet light therapy system, includes bulbs/lamps, timer and eye protection; treatment area 2 square feet or less
E0692	Ultraviolet light therapy system panel, includes bulbs/ lamps, timer and eye protection, 4 foot panel
E0693	Ultraviolet light therapy system panel, includes bulbs/lamps, timer and eye protection, 6 foot panel
E0694	Ultraviolet multidirectional light therapy system in six foot cabinet, includes bulbs/lamps, timer and eye protection

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POLICY HISTORY:

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Medical Policy Group, January 2019
Medical Policy Group, December 2019
Medical Policy Group, December 2020

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.