BlueCross BlueShield of Alabama

Name of Blue Advantage Policy:

Phototherapy for the Treatment of Skin Disorders

Policy #: 301
Latest Review Date: December 2022
Category: Medical/DME

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).*

Proprietary Information of Blue Cross and Blue Shield of Alabama
An Independent Licensee of the Blue Cross and Blue Shield Association

POLICY:

Blue Advantage will treat **ultraviolet A or B therapy (CPT 96900)** as a **covered** benefit in the treatment of the following conditions:

- Chronic urticaria
- Eczema (atopic dermatitis)
- Lichen planus
- Mycosis fungoides (cutaneous T-cell lymphoma)
- Pityriasis lichenoides
- Pityriasis rosea
- Pruritus of renal failure
- Vitiligo
- Localized scleroderma

Blue Advantage will treat **ultraviolet B with the addition of topical coal tar** (also known as Goeckerman treatment) **or petrolatum (CPT 96910)** 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 (CPT 96900) administered in the home** as a **covered** benefit for the following conditions and when conducted under a physician's supervision with regularly scheduled exams:

- Atopic dermatitis-mild to moderate forms when standard treatment has failed
- Lichen planus
- Mycosis fungoides
- Pityriasis lichenoides
- Pruritus of hepatitis disease
- Pruritus of renal failure
- Severe atopic dermatitis

Blue Advantage will treat **ultraviolet B light therapy (CPT 96900) administered in the home** as a **non-covered** benefit **for conditions not listed above**.

Blue Advantage will treat **Psoralens and ultraviolet A light (PUVA) therapy (CPT 96912)** as a **covered** benefit for the following conditions:

- Acrodermatitis continua
- Acute/chronic pityriasis lichenoides
- Eczema (atopic dermatitis)
- Lichen planus
- Mycosis fungoides (cutaneous T-cell lymphoma)
- Nummular dermatitis
- Palmoplantar pustulosis

Proprietary Information of Blue Cross and Blue Shield of Alabama
An Independent Licensee of the Blue Cross and Blue Shield Association

- Parapsoriasis
- Poikiloderma vasculare
- Psoriasis
- Pustulosis palmaris
- Vitiligo

Blue Advantage will treat **Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least 4-8 hours of care under direct supervision of the physician (CPT 96913)** as a **covered benefit** for the following conditions:

- Acrodermatitis continua
- Acute/chronic pityriasis lichenoides
- Eczema (atopic dermatitis)
- Lichen planus
- Mycosis fungoides (cutaneous T-cell lymphoma)
- Psoriasis
- Pustulosis palmaris
- Vitiligo

Blue Advantage will treat **excimer laser treatment of vitiligo of the face, neck, trunk, abdomen, back and/or proximal limbs** as a **covered** benefit **for up to three sessions per week for 12 weeks.**

Blue Advantage will treat **excimer laser treatment of vitiligo of the distal limbs and bony prominences (i.e. fingers, wrists, elbows, knees)** as a **non-covered** benefit and as **investigational**.

Refer to policy #009 (Light Therapy for Psoriasis) for laser phototherapy (excimer laser) for the treatment of localized psoriasis.

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:

Phototherapy is defined as the exposure to nonionizing radiation for therapeutic benefit. It may involve exposure to ultraviolet A (UVA), ultraviolet B (UVB) or various combinations of UVA and UVB radiation. UV light therapy, including phototherapy and photochemotherapy is used for the treatment of certain skin conditions.

Targeted phototherapy may also be used in specific conditions that have not responded to standard therapies describes the use of ultraviolet light that can be focused on specific body areas or lesions. In contrast, photochemotherapy or psoralens in conjunction with ultraviolet A is the therapeutic use of radiation in combination with a photosensitizing chemical. Treatment with these modalities may involve partial or whole-body exposure. Photochemotherapy has been used for a large number of skin diseases, but confirmed data of its usefulness is available in only a relatively few. PUVA uses a psoralen derivative in conjunction with long wavelength ultraviolet A (UVA) light (sunlight or artificial) for photochemotherapy of skin conditions.

Targeted phototherapy with handheld lamps or lasers is also being investigated. Potential advantages of targeted phototherapy include the ability to use higher treatment doses and to limit exposure to surrounding tissue. Original NB-UVB devices consisted of a Phillips TL-01 fluorescent bulb with a maximum wavelength (lambda max) at 311 nm. Subsequently, xenon chloride (XeCl) lasers and lamps were developed as targeted UVB treatment devices; they generate monochromatic or very NB radiation with a lambda 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 with a light box, which could result in fewer treatments.

There are numerous medical and surgical treatments aimed at decreasing disease progression and/or attaining repigmentation. Topical corticosteroids, alone or in combination with topical vitamin D3 analogs, is a common first-line treatment for vitiligo. Alternative first-line therapies include topical calcineurin inhibitors, systemic steroids, and topical antioxidants.

Light therapy for vitiligo includes both targeted phototherapy and photochemotherapy with psoralen plus ultraviolet A (PUVA). Vitiligo is an idiopathic skin disorder that causes depigmentation of sections of skin, most commonly on the extremities. Depigmentation occurs because melanocytes are no longer able to function properly. The cause of vitiligo is unknown; it is sometimes considered to be an autoimmune disease. The most common form of the disorder is nonsegmental vitiligo (NSV) in which depigmentation is generalized, bilateral, symmetrical, and increases in size over time. In contrast, segmental vitiligo (SV), also called asymmetric or focal vitiligo, covers a limited area of skin. The typical natural history of vitiligo involves stepwise progression with long periods in which the disease is static and relatively inactive, and relatively shorter periods in which areas of pigment loss increase.

Treatment options for vitiligo recalcitrant to first-line therapy include, among others, PUVA and targeted light therapy. PUVA uses a psoralen derivative in conjunction with long-wavelength ultraviolet A 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. With topical PUVA, UVA exposure is generally administered within 30 minutes of psoralen application.

Excimer laser is a form of ultraviolet laser proposed for the treatment of various dermatologic conditions including atopic dermatitis, psoriasis and vitiligo. Laser therapy provides intense

UVB light to a limited area of skin, providing the potential benefit of more rapid clinical response from targeted phototherapy while avoiding the side effects of ultraviolet light to unaffected skin.

Refer to policy# 009, Light Therapy for Psoriasis for phototherapy treatment of psoriasis.

KEY POINTS:

This policy has been updated regularly with searches of the MEDLINE database. The most recent literature update was performed through October 24, 2022.

Summary of Evidence

For individuals who have vitiligo who receive targeted phototherapy, the evidence includes systematic reviews of randomized controlled trials (RCTs), 2 individual RCTs, and 2 retrospective studies. Relevant outcomes are a change in disease status, quality of life, and treatment-related morbidity. Individual studies tend to have small sample sizes, and few were designed to isolate the effect of laser therapy. Two meta-analyses were attempted; however, results from a meta-analysis could not be verified because the selected studies were not available in English, and 1 estimate was imprecise due to the small number of studies and participants. Randomized controlled trials have shown targeted phototherapy to be associated with statistically significant improvements in Vitiligo Area Scoring Index scores and/or repigmentation compared to alternate treatment options. However, 1 of the RCTs only showed marginal differences between groups in these outcomes, limiting clinical significance; the second compared phototherapy to oral vitamin E, which is not an optimal comparator. Overall, there is a lack of clinical trial evidence that compares targeted phototherapy with more conservative treatments or no treatment/placebo. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have vitiligo who have not responded to conservative therapy who receive PUVA (photochemotherapy), theevidence includes systematic reviews and RCTs. Relevant outcomes are a change in disease status, quality of life, and treatment-related morbidity. There is some evidence from randomized studies, mainly those published before 1985, that PUVA is more effective than a placebo for treating vitiligo. When compared with narrowband ultraviolet B (NB-UVB) in meta-analyses, results have shown that individuals receiving NB-UVB experienced higher rates of repigmentation than patients receiving PUVA, though thedifferences were not statistically significant. Based on the available evidence and clinical guidelines, PUVA may be considered inpatients with vitiligo who have not responded adequately to conservative therapy. The evidence is sufficient to determine that thetechnology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements

Vitiligo Working Group

The Vitiligo Working Group is supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases, part of the National Institutes of Health. In 2017, the group published guidelines on current and emerging treatments for vitiligo. The Working Group

indicated that psoralens with ultraviolet A has largely been replaced by narrowband ultraviolet B, but that "PUVA may be considered in patients with darker Fitzpatrick skin phototypes or those with treatment-resistant vitiligo (level I evidence)." The Working Group also stated that "Targeted phototherapy (excimer lasers and excimer lamps) can be considered when <10% of body surface area is affected (level II evidence)."

U.S. Preventive Services Task Force Recommendations
Not applicable.

KEY WORDS:
Phototherapy, photochemotherapy, UVA, UVB, PUVA, ultraviolet A, ultraviolet B, excimer laser phototherapy, excimer laser, 308-nm excimer laser, 308-nm xenon chloride excimer laser, vitiligo, psoralen plus ultraviolet A, atopic dermatitis, Handisol II

APPROVED BY GOVERNING BODIES:
In 2001, XTRAC™ (PhotoMedex), a XeCl excimer laser, was cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process for the treatment of skin conditions such as vitiligo. The 510(k) clearance has subsequently been obtained for a number of targeted ultraviolet B lamps and lasers, including newer versions of the XTRAC system including the XTRAC Ultra™, the VTRAC™ lamp (PhotoMedex), the BClear™ lamp (Lumenis), the 308 excimer lamp phototherapy system (Quantel Medical), MultiClear Multiwavelength Targeted Phototherapy System, Psoria-LightTM, and the Excilite™ and Excilite µ™ XeCl lamps. The intended use of all of these devices includes vitiligo among other dermatologic indications. Some light-emitting devices are handheld.

The oral psoralen product, 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.

BENEFIT APPLICATION:
Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

CURRENT CODING:
CPT Codes:

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

Proprietary Information of Blue Cross and Blue Shield of Alabama
An Independent Licensee of the Blue Cross and Blue Shield Association

	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 medication and dressings)
96920	Laser treatment for inflammatory skin disease (psoriasis); total area less than 250 sq cm
96921	Laser treatment for inflammatory skin disease (psoriasis); 250 sq cm to 500 sq cm
96922	Laser treatment for inflammatory skin disease (psoriasis); over 500 sq cm
96999	Unlisted special dermatological service or procedure

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

REFERENCES:

1. Bae JM, Jung HM, Hong BY, et al. Phototherapy for vitiligo: a systematic review and meta-analysis. JAMA Dermatol. Jul 01 2017; 153(7):666-674.
2. Bansal S, Sahoo B, Garg V. Psoralen-narrowband UVB phototherapy in treatment of vitiligo in comparison to narrowband UVB phototherapy. Photodermatol Photoimmunol Photomed 2013.
3. Cecil Textbook of Medicine, 22nd edition. Goldman Lee and Ausiella Dennis, editors. Saunders Publishing.

4. Dong DK, Pan ZY, Zhang J, et al. Efficacy and safety of targeted high-intensity medium-band (304-312 nm) ultraviolet B light in pediatric vitiligo. Pediatr Dermatol. May 2017; 34(3):266-270.
5. El-Zawahry BM, Bassiouny DA, Sobhi RM et al. A comparative study on efficacy of UVA1 vs. narrow-band UVB phototherapy in the treatment of vitiligo. Photodermatol Photoimmunol Photomed 2012; 28(2):84-90.
6. Fa Y, Lin Y, Chi XJ, et al. Treatment of vitiligo with 308-nm excimer laser: our experience from a 2-year follow-up of 979 Chinese patients. J Eur Acad Dermatol Venereol. Feb 2017; 31(2):337-340.
7. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.
8. Kreuter A, Breuckmann F, Uhle A, et al. Low-dose UVA1 phototherapy in systemic sclerosis: Effects on acrosclerosis. J Am Acad Dermatol, Vol. 50, No. 5, pp. 740-747.
9. Lopes C, Trevisani VF, Melnik T. Efficacy and safety of 308-nm Monochromatic Excimer Lamp versus other phototherapy devices for vitiligo: a systematic review with meta-analysis. Am J Clin Dermatol. Feb 2016; 17(1):23-32.
10. Medical-Surgical Nursing: Assessment and Management of Clinical Problems, 4th edition. Lewis Sharon M, Collier Idolia C and Heitkemper Margaret M, editors. Mosby Publishing.
11. Nistico S, Chiricozzi A, Saraceno R et al. Vitiligo treatment with monochromatic excimer light and tacroliums: results of an open randomized controlled study. Photomed Laser Surg 2012; 30(1):26-30.
12. Poolsuwan P, Churee C, Pattamadilok B. Comparative efficacy between localized 308-nm excimer light and targeted 311-nm narrowband ultraviolet B phototherapy in vitiligo: A randomized, single-blind comparison study. Photodermatol Photoimmunol Photomed. Oct 12 2020.
13. Poolsuwan P, Churee C, Pattamadilok B. Comparative efficacy between localized 308-nm excimer light and targeted 311-nm narrowband ultraviolet B phototherapy in vitiligo: A randomized, single-blind comparison study. Photodermatol Photoimmunol Photomed. Mar 2021; 37(2): 123-130.
14. Rodrigues M, Ezzedine K, Hamzavi I, et al. Current and emerging treatments for vitiligo. J Am Acad Dermatol. Jul 2017; 77(1):17-29.
15. Shi Q, Li K, Fu J et al. Comparison of the 308-nm excimer laser with the 308-nm excimer lamp in the treatment of vitiligo--a randomized bilateral comparison study. Photodermatol Photoimmunol Photomed 2013; 29(1):27-33.
16. Sun Y, Wu Y, Xiao B, et al. Treatment of 308-nm excimer laser on vitiligo: A systemic review of randomized controlled trials. J Dermatolog Treat. Jan 30 2015:1-7.
17. Taieb A, Alomar A, Bohm M et al. Guidelines for the management of vitiligo: the European Dermatology Forum consensus. Br J Dermatol 2013; 168(1):5-19.
18. Whitton ME, Pinart M, Batchelor J, et al. Interventions for vitiligo. Cochrane Database Syst Rev. Feb 24 2015; (2): CD003263.

19. Wu Y, Sun Y, Qiu L, et al. A multicentre, randomized, split face and/or neck comparison of 308-nm excimer laser and 0·1%tacrolimus ointment for stable vitiligo plus intramuscular slow-releasing betamethasone for active vitiligo. Br J Dermatol. Jul2019; 181(1): 210-211.
20. www.uptodate.com/online/content/topic.do?topicKey=sclerode/2411&view=print.
21. Zhang C, Zhou L, Huang J, et al. A combination of Yiqiqubai granule and 308-nm excimer laser in treatment of segmental vitiligo: a prospective study of 233 patients. J Dermatolog Treat. Mar 21 2017:1-4.

POLICY HISTORY:

Adopted for Blue Advantage, March 2007
Available for comment April 30-June 13, 2007
Medical Policy Group, June 2007
Available for comment July 5-August 18, 2007
Medical Policy Group, May 2009
Available for comment May 16-June 28, 2009
Medical Policy Group, July 2009
Available for comment July 20-September 2, 2009
Medical Policy Group, November 2011
Medical Policy Group, December 2011
Medical Policy Group, April 2013
Medical Policy Group, April 2014
Medical Policy Group, June 2015
Medical Policy Group, January 2016
Medical Policy Group, April 2016
Available for comment April 5 through May 20, 2016
Medical Policy Group, December 2016
Medical Policy Group, August 2017
Medical Policy Group, December 2017
Medical Policy Group, April 2019
Medical Policy Group, December 2019
Medical Policy Group, March 2020: Updates to Coding Section to include CPT codes 96920, 96921, 96922, and 96999.
Medical Policy Group, January 2021
Medical Policy Group, January 2022
Medical Policy Group, December 2022

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.