

02-10000-16

Original Effective Date: 04/17/00

Reviewed: 03/25/21

Revised: 04/15/21

Subject: Psoralens Plus Ultraviolet A (PUVA) Therapy (Photochemotherapy)

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Updates			

DESCRIPTION:

Psoralen plus ultraviolet A (PUVA), also known as photochemotherapy, uses a psoralen derivative in conjunction with UVA light (sunlight or artificial) to treat skin conditions. Psoralens are tricyclic furocoumarins 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 not used in some European countries for generalized psoriasis, but the agent used (trimethylpsoralen) is not approved by the FDA. Paint PUVA 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 in 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 (eg, systemic therapies such as methotrexate, phototherapy, biologic therapies) has associated benefits and risks. Common minor toxicities associated with PUVA include erythema, pruritus, irregular pigmentation, and gastrointestinal tract symptoms; they generally can be managed by altering the dose of psoralen or ultraviolet light. Potential long-term effects include photoaging and skin cancer, particularly squamous cell carcinoma 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 disease.

Vitiligo is an idiopathic skin disorder that causes depigmentation of sections of skin, most commonly on the extremities. Topical corticosteroids, alone or in combination with topical vitamin D3 analogues, are common first-line treatments for vitiligo. Alternative first-line therapies include topical calcineurin inhibitors, systemic steroids, and topical antioxidants. Treatment options for vitiligo recalcitrant to first-line therapy include, among others, ultraviolet B, light box therapy, and PUVA.

POSITION STATEMENT:

Psoralens plus ultraviolet A (PUVA) therapy, ordered by a physician, **meets the definition of medical necessity** for the following indications:

- vitiligo or severe disabling psoriasis not responsive to other forms of conservative treatment; or other severe skin conditions not responsive to conservative treatment (e.g., topical corticosteroids, coal/tar preparations, ultraviolet light).
- cutaneous manifestations of mycosis fungoides exhibited when the member is being treated for lymphatic, splenic, or other organ system involvement.

NOTE: Documentation of physician’s supervision during PUVA therapy and monitoring of treatment response is required.

PUVA **meets the definition of medical necessity** only when the above criteria are met and the service is provided in a clinical setting and not in the home. During PUVA therapy, the member must be assessed on a regular basis to determine the effectiveness of the treatments and the development of side effects.

Grenz Ray therapy is considered **experimental or investigational** for the treatment of dermatologic conditions. The evidence is insufficient to permit conclusions on health outcomes.

BILLING/CODING INFORMATION:

CPT Coding:

96912	Photochemotherapy; psoralens and ultraviolet A (PUVA)
96913	Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least 4 to 8 hours of care under direct supervision of the physician (includes application of medication and dressings)

HCPCS Coding:

E0691	Ultraviolet light therapy system, includes bulbs/lamps, timer and eye protection; treatment area 2 square feet or less (non-covered)
E0692	Ultraviolet light therapy system panel, includes bulbs/lamps, timer and eye protection, four foot panel (non-covered)
E0693	Ultraviolet light therapy system panel, includes bulbs/lamps, timer and eye protection, six foot panel (non-covered)

ICD-10 Diagnosis Codes That Support Medical Necessity:

A67.2	Late lesions of pinta
C84.00 – C84.09	Mycosis fungoides
C84.10 – C84.19	Sezary’s disease

H02.731 – H02.739	Vitiligo of eyelid and periocular area
L20.0 – L20.82 L20.84 – L20.9	Atopic dermatitis
L25.8, L25.9	Unspecified contact dermatitis
L26	Exfoliative dermatitis
L29.8, L29.9	Pruritus
L30.1	Dyshidrosis
L30.4	Erythema dermatitis
L40.0 – L41.9	Psoriasis and parapsoriasis
L42	Pityriasis rosea
L43.0 – L43.9	Lichen planus
L53.8	Other specified erythematous conditions
L54	Erythema in diseases classified elsewhere
L56.0 – L56.3 L56.8 – L56.9	Other acute skin changes due to ultraviolet radiation
L63.2 – L63.9	Alopecia areata
L66.1	Lichen planopilaris
L80	Vitiligo
L92.0	Granuloma annulare
L95.1	Erythema elevatum diutinum
L98.2	Febrile neutrophilic dermatosis [Sweet]
Q82.1 – Q82.3 Q82.8	Other congenital malformations of skin
T86.00 – T86.09	Complications of bone marrow transplant

REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products:

The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date:
Treatment of Psoriasis (250.1) located at cms.gov.

DEFINITIONS:

Grenz Ray Therapy: A type of ultrasoft radiation waves used in the treatment of skin conditions. Grenz rays are x-rays produced at low kilovotages giving them a very low penetration power.

RELATED GUIDELINES:

[Excimer Laser Therapy for Treatment of Dermatologic Conditions, 02-10000-13](#)

OTHER:

None applicable.

REFERENCES:

1. American Academy of Dermatology, Guidelines Of Care For Atopic Dermatitis, located at aad.org.
2. American Osteopathic College of Dermatology, Grenz Rays, located at aocd.org.
3. Blue Cross Blue Shield Association Evidence Positioning System[®]. 2.01.47 Light Therapy for Psoriasis, 02/21.
4. Blue Cross Blue Shiled Association Evidence Positioning System[®]. 2.01.86 Targeted Phototherapy and Psoralen with Ultraviolet A for Vitiligo, 01/21.
5. Centers for Medicare & Medicaid Services (CMS), National Coverage Determination (NCD) for Treatment of Psoriasis (250.1), located at cms.gov.
6. ClinicalTrials.gov. Explorative Investigations on the Mechanisms of Action of Photo(Chemo)Therapy in Skin Diseases; accessed February 2021.
7. Graier T, Fink-Puches R, et al. Quality of Life, Anxiety, and Depression in Patients With Early-Stage Mycosis Fungoides and the Effect of Oral Psoralen Plus UV-A (PUVA) Photochemotherapy on it. *Front Med.* 2020 Aug 5;7:330. doi: 10.3389/fmed.2020.00330. eCollection 2020.
8. Hayes, Inc., Phototherapy For Acne Vulgaris, update 12/06.
9. Menter A, Gelfand JM, et al. Joint American Academy of Dermatology–National Psoriasis Foundation guidelines of care for the management of psoriasis with systemic nonbiologic therapies. *J Am Acad Dermatol.* 2020 Jun;82(6):1445-1486.
10. Menter A, Korman NJ, Elmets CA, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 5. Guidelines of care for the treatment of psoriasis with phototherapy and photochemotherapy. *J Am Acad Dermatol.* Jan 2010;62(1):114-135.
11. Menter A, Strober BE, Kaplan DH, et al. Joint American Academy of Dermatology–National Psoriasis Foundation guidelines of care for the management and treatment of psoriasis with biologics. *J Am Acad Dermatol.* 2019 Apr;80(4):1029-1072.
12. National Comprehensive Cancer Network[®] (NCCN). NCCN Clinical Practice Guidelines in Oncology–Primary Cutaneous Lymphomas, Version 1.2021; accessed at nccn.org.
13. Phan K, Ramachandran V, et al. Comparison of Narrowband UV-B With Psoralen-UV-A Phototherapy for Patients With Early-Stage Mycosis Fungoides: A Systematic Review and Metaanalysis. *JAMA Dermatol.* 2019 Mar 1;155(3):335-341.
14. Taieb A, Alomar A, Bohm M, et al. Guideline on Vitiligo, *Br J Dermatol.* Jan 2013;168(1):5-19.
15. U.S. Food and Drug Administration (FDA); accessed at fda.gov.
16. Vieyra-Garcia P, Fink-Puches R, et al. Evaluation of Low-Dose, Low-Frequency Oral Psoralen-UV-A Treatment With or Without Maintenance on Early-Stage Mycosis Fungoides: A Randomized Clinical Trial. *JAMA Dermatol.* 2019 Mar 20. doi: 10.1001/jamadermatol.2018.5905. [Epub ahead of print]. PMID: 30892603.
17. Vieyra-Garcia PA, Wolf P. A deep dive into UV-based phototherapy: Mechanisms of action and emerging molecular targets in inflammation and cancer. *Pharmacol Ther.* 2020 Dec 11;222:107784. doi: 10.1016/j.pharmthera.2020.107784. PMID:33316286.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 03/25/21.

GUIDELINE UPDATE INFORMATION:

04/17/00	Medical Coverage Guideline Reformatted and Revised.
03/15/02	MCG References updated.
03/15/04	Scheduled review. References updated. Converted MCG to "Guideline No Longer Scheduled For Routine Review".
09/15/04	Revision to guideline consisting of adding HCPCS E0691 – E0694 as non-covered.
09/15/07	Reviewed; coverage statement maintained, guideline reformatted, references updated.
04/02/09	Information regarding Grenz Ray therapy added to the guideline.
01/01/10	Annual HCPCS coding update: revised descriptor for code 96913.
10/15/10	Revision; related ICD-10 codes added.
01/01/12	Annual HCPCS coding update. Revised descriptor for code E0691; coding section updated.
01/15/13	Revision; position statement section and references updated; formatting changes.
05/11/14	Revision: Program Exceptions section updated.
10/01/15	Revision; ICD9 & ICD10 coding sections updated.
11/01/15	Revision: ICD-9 Codes deleted.
10/01/16	Revision; formatting changes.
06/15/17	Revision; title, description, position statements, coding, and references updated.
02/15/19	Revision; Code E0694 deleted (refer to MCG 09-A0000-00).
06/15/19	Review; position statements maintained and references updated.
04/15/21	Review; Position statements maintained, title and references updated.