

Clinical Policy: Laser Therapy for Skin Conditions

Reference Number: CP.MP.123

Date of Last Revision: 03/22

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Description

Targeted phototherapy utilizes non-ionizing ultraviolet radiation with therapeutic benefit. Phototherapy is an efficacious local therapy that provides several advantages to traditional and biologic systemic therapies. Excimer lasers are monochromatic 308 nm xenon chloride lasers that are approved to treat certain inflammatory skin diseases. This policy describes the medical necessity requirements for excimer laser based targeted phototherapy.

Policy/Criteria

- I. It is the policy of health plans affiliated with Centene Corporation[®] that excimer laser based targeted phototherapy is **medically necessary** for the following indications after the failure of topical treatments:
 - A. Localized plaque psoriasis with <10% body surface area (BSA) involvement, individual lesions, or more extensive disease;
 - B. Vitiligo.

- II. It is the policy of health plans affiliated with Centene Corporation that the evidence is insufficient to draw conclusions regarding the efficacy of excimer laser targeted phototherapy for the following indications:
 - A. Patients with photosensitivity disorders;
 - B. Acute dermatitis;
 - C. For the treatment of all other conditions than those specified above.

Background

Targeted phototherapy uses a localized delivery of ultraviolet light to facilitate therapeutic relief of some conditions. Ultraviolet light is predominantly absorbed by skin DNA, leading to the generation of pyrimidine dimers, pyrimidine, and (6-4)-photoproducts which are either repaired or marked for arrest or cell death through the cell's checkpoint machinery.⁵ Various spectra of ultraviolet A (UVA) and ultraviolet B (UVB) wavelengths are utilized to treat a varying array of inflammatory skin disorders, including narrowband, broadband, and excimer lasers, as well as combinations of UVA and UVB with topical, systemic, biologic, and chemotherapeutic regimens.¹ Additionally, phototherapy is cost effective and avoids the immunosuppressive effects that often accompany traditional and biologic based systemic therapies.

Excimer lasers are monochromatic 308nm xenon chloride lasers that provide a safe and selective approach to treating dermatological conditions. Excimer lasers are associated with significant T-cell depletion, alterations in apoptosis-related molecules, reductions in proliferation indices, and immunomodulatory mechanisms.⁶ An early study by Feldman *et al* assessed the efficacy of excimer lasers for the treatment of mild to moderate psoriasis in a multicenter study. The authors noted that 84% of the patients reached the primary outcome of at least 75% improvement of their plaques within 1 month.⁷ Another study by Rodewald *et al* compared the excimer laser to a non-

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intervention, placebo cohort, as well as other standard topical treatments for psoriasis.⁸ The laser and topical calcipotriene had similar efficacies but both were more effective than topical tazarotene or fluocinonide and the time to achieve 75% improvement favored the excimer laser.⁸ Therefore, laser was comparable to or more effective than other standard treatments for psoriasis.⁸

According to a joint updated guideline from the American Academy of Dermatology-National Psoriasis Foundation, the excimer laser is recommended for use in adults with localized plaque psoriasis (including palmoplantar psoriasis) <10% BSA, for individual lesions, or in patients with more extensive disease (recommendation based on consistent, good quality patient-oriented evidence.) Excimer laser is also recommended in the treatment of scalp psoriasis in adults (based on inconsistent or limited-quality patient-oriented evidence.)¹³

The initial treatment dose of the excimer laser depends on the individual’s skin type, plaque characteristics, and thickness, with subsequent doses adjusted in accordance to the patient’s clinical response and side effects.^{1,13} Treatment takes place 2-3 times per week until a patient is clear of symptoms. According to a separate guideline on children from the American Academy of Dermatology-National Psoriasis Foundation, excimer laser may be used in children with psoriasis and may be efficacious and well tolerated, but these options have limited supporting evidence.¹⁴

The European Dermatology Forum and the British Association of Dermatologists provide guidelines for the management of vitiligo.³⁻⁴ The consensus of the European Dermatology Forum is that targeting phototherapy should be indicated for localized vitiligo and for small lesion of recent onset and childhood vitiligo.³ Notably, Alhawaish et al documented the effectiveness of excimer laser treatments in vitiligo in 23 separate articles that included case studies, randomized controlled studies, retrospective analyses, randomized blinded studies, and controlled comparative studies.⁹ Although the response time and the duration of response varied, the excimer laser therapy was generally effective across all of the studies.⁹ While several treatment options are available for vitiligo, targeted laser therapy delivers high intensity light to the desired depigmented area to avoid exposure to surrounding neighboring healthy skin.¹⁷

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
96920	Laser treatment for inflammatory skin disease (psoriasis); total area less than 250 sq. cm

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CPT® Codes	Description
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

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
L40.0	Psoriasis vulgaris (plaque psoriasis)
L80	Vitiligo

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Policy developed.	07/16	08/16
References reviewed and updated.	07/17	08/17
References reviewed and updated	05/18	06/18
References reviewed and updated. Specialist review.	05/19	06/19
Revised indication from “Mild, moderate, or severe psoriasis with < 10% body surface area (BSA) involvement” to “Localized plaque psoriasis <10% body surface area (BSA) involvement, individual lesions, or with more extensive disease.” Background updated with recent guidelines from AAD. References reviewed and updated.	05/20	06/20
Annual review. “Experimental/investigational” verbiage replaced in policy statement with “evidence is insufficient to draw conclusions.” Replaced all instances of “member” with “member/enrollee.” Coding reviewed. References reviewed and reformatted. Changed “review date” in the header to “date of last revision” and “date” in the revision log header to “revision date.”	06/21	06/21
Annual review. Background updated with no impact to policy statement. Specialist reviewed. References reviewed and updated.	03/22	03/22

References

1. 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 [published correction appears in *J Am Acad Dermatol*. 2021 Feb;84(2):586]. *J Am Acad Dermatol*. 2010;62(1):114-135. doi:10.1016/j.jaad.2009.08.026
2. Sidbury R, Davis DM, Cohen DE, et al. Guidelines of care for the management of atopic dermatitis: section 3. Management and treatment with phototherapy and systemic agents. *J Am Acad Dermatol*. 2014; 71(2):327-349. doi:10.1016/j.jaad.2014.03.030
3. Gawkrödger DJ, Ormerod AD, Shaw L, et al. Guideline for the diagnosis and management of vitiligo. *Br J Dermatol*. 2008;159(5):1051-1076. doi:10.1111/j.1365-2133.2008.08881.x.
4. 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. doi:10.1111/j.1365-2133.2012.11197.x.

5. Feldman, SR. Targeted phototherapy. UpToDate. www.uptodate.com. Updated December 14, 2020. Accessed February 3, 2022.
6. Specchio F, Carboni I, Carnnarozzo G, Tamburi F, Dattola E, Nistico S. Excimer UV radiation in dermatology. *Int J Immunopathol Pharmacol*. 2014;27(2):287-289. doi: 10.1177/039463201402700217.
7. Feldman, SR, Mellen BG, Housman TS, et al. Efficacy of the 308-nm excimer laser for treatment of psoriasis: results of a multicenter study. *J the Am Acad of Dermatol*. 2002; 46(6):900-906. doi:10.1067/mjd.2002.120454.
8. Rodewald EJ, Housman TS, Mellen BG, Feldman SR. The efficacy of 308nm laser treatment of psoriasis compared to historical controls. *Dermatol Online J*. (2001);7(2):4.
9. Alhowaish, AK, Dietrich N, Onder M, Fitz K. Effectiveness of a 308-nm excimer laser in treatment of vitiligo: a review. *Lasers Med Sci*. 2013; 28(3):1035-1041. doi: 10.1007/s10103-012-1185-1.
10. Grimes PE. Vitiligo: Management and prognosis. UpToDate. www.uptodate.com. Updated April 2, 2021. Accessed February 3, 2022.
11. Salah Eldin MM, Sami NA, Aly DG, Hanafy NS. Comparison between (311-312 nm) Narrow Band Ultraviolet-B Phototherapy and (308 nm) Monochromatic Excimer Light Phototherapy in Treatment of Vitiligo: A Histopathological Study. *J Lasers Med Sci*. 2017;8(3):123-127. doi:10.15171/jlms.2017.22.
12. Comparative effectiveness review of laser therapy for psoriasis. Hayes. www.hayesinc.com. Published April 25, 2019 (annual review July 23, 2020). Accessed February 3, 2022.
13. Elmetts CA, Lim HW, Stoff B, et al. Joint American Academy of Dermatology-National Psoriasis Foundation guidelines of care for the management and treatment of psoriasis with phototherapy [published correction appears in *J Am Acad Dermatol*. 2020 Mar;82(3):780]. *J Am Acad Dermatol*. 2019;81(3):775-804. doi:10.1016/j.jaad.2019.04.042
14. Menter A, Cordoro KM, Davis DMR, et al. Joint American Academy of Dermatology-National Psoriasis Foundation guidelines of care for the management and treatment of psoriasis in pediatric patients [published correction appears in *J Am Acad Dermatol*. 2020 Mar;82(3):574]. *J Am Acad Dermatol*. 2020;82(1):161-201. doi:10.1016/j.jaad.2019.08.049
15. Paller AS, Lund EB. Psoriasis in children: Management of chronic plaque psoriasis. UpToDate. www.uptodate.com. Updated September 29, 2021. Accessed February 3, 2022.
16. Feldman SR. Treatment of Psoriasis in Adults. UpToDate. www.uptodate.com. Updated January 19, 2022. Accessed February 3, 2022.
17. Kuroda Y, Yang L, Lai S, Guo J, Sayo T, Takahashi Y, Tsuruta D, Katayama I. A Lower Irradiation Dose of 308 nm Monochromatic Excimer Light Might Be Sufficient for Vitiligo Treatment: A Novel Insight Gained from In Vitro and In Vivo Analyses. *International Journal of Molecular Sciences*. 2021; 22(19):10409. <https://doi.org/10.3390/ijms221910409>
18. Nicolaidou E, Antoniou C, Stratigos A, Katsambas AD. Narrowband ultraviolet B phototherapy and 308-nm excimer laser in the treatment of vitiligo: a review. *J Am Acad Dermatol*. 2009;60(3):470-477. doi:10.1016/j.jaad.2008.07.053
19. Sung JM, Bae JM, Kang HY. Comparison of cyclic and continuous 308-nm excimer laser treatments for vitiligo: A randomized controlled noninferiority trial. *J Am Acad Dermatol*. 2018;78(3):605-607.e1. doi:10.1016/j.jaad.2017.09.048
20. Elsaadany AE, El-Khalawany M, Elshahid AR, Seddeik Abdel-Hameed AK. Comparison between 308-nm excimer light alone versus 308-nm excimer light and platelet-rich plasma in

the treatment for localized vitiligo [published online ahead of print, 2021 Oct 31]. *J Cosmet Dermatol.* 2021;10.1111/jocd.14582. doi:10.1111/jocd.14582.

21. National coverage determination: treatment of psoriasis (250.1). Centers for Medicare and Medicaid Services Web site. <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=88&ncdver=1&>. Accessed February 4, 2022.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs LCDs and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <http://www.cms.gov> for additional information.

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