Clinical Policy: Laser Therapy for Skin Conditions

Reference Number: PA.CP.MP.123
Effective Date: 01/18 Coding Implications
Date of Last Revision: 9/22/2022 Revision Log

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 Pennsylvania Health and Wellness® (PHW) that excimer laser based targeted phototherapy is **medically necessary** for the following indications after the failure of topical treatments:
   A. Localized plaque psoriasis <10% body surface area (BSA) involvement, individual lesions, or with more extensive disease;
   B. Vitiligo.

II. It is the policy of PHW 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-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, Alhowaish 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

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CPT® Codes	Description
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

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	09/17	1/18
Annual Review. References reviewed and updated	09/18	
References reviewed and updated. Specialist review.	10/19	
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.	10/2020	12/7/2020
"Experimental/investigational" verbiage replaced in policy statement with "evidence is insufficient to draw conclusions." Changed "review date" in the header to "date of last revision" and "date" in the revision log header to "revision date." Annual review. Coding reviewed. References reviewed and reformatted.	9/29/2021	
Annual review. Background updated with no impact to policy statement. Specialist reviewed. References reviewed and updated.	9/22/2022	

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