Clinical Policy: Laser Therapy for Skin Conditions

Reference Number: PA.CP.MP.123
Effective Date: 01/18
Last Review Date: 08/17

Coding Implications
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. Mild, moderate, or severe psoriasis with < 10% body surface area (BSA) involvement;
   B. Vitiligo.

II. It is the policy of PHW that excimer laser targeted phototherapy is considered **experimental/investigational** 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 the American Academy of Dermatologists, the excimer laser is indicated for both adult and pediatric patients with mild, moderate, and severe psoriasis who have less than 10% BSA involvement.[1] 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] Treatment takes place 2-3 times per week until a patient is clear of symptoms and lasts an average of 10-12 treatments. Initial response is noted within 8-10 treatments, which depends on the protocol used, lesion characteristics, and site, and the mean remission time is 3.5-6 months.[1]

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]

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 2017, 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
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	Date	Approval Date

References

1. Menter, Alan, et al. "Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 5. Guidelines of care for treatment of psoriasis with phototherapy and photochemotherapy."Journal of the American Academy of Dermatology 62, 1 (2010): 114-.135
2. Sidbury, Robert, et al. "Guidelines of care for the management of atopic dermatitis: section 3. Management and treatment with phototherapy and systemic agents." Journal of the American Academy of Dermatology 71.2 (2014): 327-349.
3. Gawkrodger, D. J., et al. "Guideline for the diagnosis and management of vitiligo."British journal of dermatology 159.5 (2008): 1051-1076.
4. Taieb, A., et al. "Guidelines for the management of vitiligo: the European Dermatology Forum consensus."British Journal of Dermatology. 168.1 (2013): 5-19.
5. Feldman, SR. "Targeted phototherapy." In: UpToDate, Corona R. (Ed), UpToDate, Waltham, MA. Accessed on July, 20. 2016.
6. Specchio, F., et al. "Excimer UV radiation in dermatology." International journal of immunopathology and pharmacology. 27.2 (2014): 287-289.
7. Feldman, Steven R., et al. "Efficacy of the 308-nm excimer laser for treatment of psoriasis: results of a multicenter study." Journal of the American Academy of Dermatology. 46.6 (2002): 900-906.
8. Rodewald, Erin J., et al. "The efficacy of 308nm laser treatment of psoriasis compared to historical controls." Dermatology online journal. 7.2 (2001).
9. Alhowaish, Alauldin Khalef, et al. "Effectiveness of a 308-nm excimer laser in treatment of vitiligo: a review." Lasers in medical science. 28.3 (2013): 1035-1041.