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Medical Policy Laser Treatment of Active Acne

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Policy Number: 461

BCBSA Reference Number: 2.01.69A (For Plan internal use only) NCD/LCD: N/A

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Related Policies

Dermatologic Applications of Photodynamic Therapy, #463

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Laser treatment of active acne is considered **INVESTIGATIONAL**.

Prior Authorization Information

Inpatient

 For services described in this policy, precertification/preauthorization <u>IS REQUIRED</u> for all products if the procedure is performed <u>inpatient</u>.

Outpatient

• For services described in this policy, see below for products where prior authorization <u>might be</u> <u>required</u> if the procedure is performed <u>outpatient</u>.

	Outpatient
Commercial Managed Care (HMO and POS)	This is not a covered service.
Commercial PPO and Indemnity	This is not a covered service.
Medicare HMO Blue sm	This is not a covered service.
Medicare PPO Blue sM	This is not a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

According to the policy statement above, the following CPT codes are considered investigational for the conditions listed for <u>Commercial Members: Managed Care (HMO and POS), PPO,</u> <u>Indemnity, Medicare HMO Blue and Medicare PPO Blue:</u>

CPT	
codes:	Code Description
17110	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular proliferative lesions; up to 14 lesions
17111	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular proliferative lesions; 15 or more lesions

CPT Codes

Description

Lasers have been used to treat acne scarring, and may also be useful for active acne. Various types of laser treatments are available, including pulsed and non-pulsed devices, and differing wavelengths of emitted light. Lasers may improve active acne by killing propionibacterium acnes (*P. acnes*) and/or by reducing inflammation.

Acne is a very common disorder of the pilosebaceous follicles that primarily affects adolescents and young adults and may be classified as inflammatory or noninflammatory. Acne is characterized by comedones, nodules, and eruptions of papules, pustules, and nodulocystic lesions. Lesions are found in areas with the greatest concentration of sebaceous glands, i.e., the face, neck, and upper part of the trunk. The 4 causal factors of acne are androgen-mediated sebaceous gland hyperplasia and excess sebum production; abnormal follicular keratinization, which results in plugging of the follicles, and comedo formation; proliferation of propionibacterium acnes (*P. acnes*); and inflammation resulting from the chemoattractant and proinflammatory byproducts of *P. acnes*. Genetic factors, diet, and stress may also contribute to the development and severity of acne. Treatment of active acne usually consists of good skin care regimen, benzoyl peroxide, antibiotics, and retinoids. Active acne is distinct from acne scarring, which may occur from tissue damage after inflammatory lesions subside.

Pulsed dye laser has been used in the treatment of acne scarring; however, more recently, lasers have been investigated for the treatment of active inflammatory acne. Laser therapy at various irradiation levels or fluences (e.g., low- and mid-level irradiation lasers and long-pulse diode lasers) has been used to destroy active acne lesions and enlarged sebaceous glands. Lasers are believed to improve active acne lesions by reducing the presence of *P. acnes,* which contain porphyrins that are destroyed by exposure to light of specific wavelengths (i.e., blue light of 405–420 nm). Lasers may also have anti-inflammatory affects (i.e., red light of 660 nm) that may improve active acne. Low fluence pulsed dye lasers are less ablative and purpuric and may be preferred in active acne treatment to limit tissue damage and potential treatment-related scarring. Laser treatment of active acne lesions may also reduce potential acne scarring that can occur in severe cases.

Regulatory Status

A number of laser and focused light devices have received marketing clearance for the treatment of acne via the U.S. Food and Drug Administration's (FDA's) 510(k) mechanism. These include lasers that emit light at 1320 nm (Candela Smoothbeam[™] and CoolTouch[®]); intense pulsed light systems, which emit light in the range of 590 to 1200 nm (Radiancy ClearTouch[™], MED flash II and Ellispse I²PL); pulsed dye lasers (ICN Photonics NLite System); and lasers or high-intensity light devices, which emit violet or blue (around 414 nm) and red (around 633 nm) light (Aura[™], Clearlight and Dermillume). The specific indications for these devices vary; Candela Smoothbeam[™] is indicated solely for the treatment of acne on the back, others are indicated for the treatment of inflammatory acne or for mild to moderate acne with no location specified. In 2006, a thermal device (ThermaClear[™]) was cleared for marketing for the "treatment of individual acne pimples in persons with mild to moderate inflammatory acne" in both a practitioner's office environment and a consumer home-use environment.

Summary

Due to the small sample sizes of the published trials, lack of long-term follow-up, small number of studies on any particular type of laser, and paucity of studies comparing light therapy to standard acne treatments, the evidence is insufficient to draw conclusions about the impact of laser treatments on health outcomes in patients with active acne. Therefore, the technology is considered investigational.

Policy History

Date	Action
11/2022	Annual policy review. Policy updated with literature review through October 2022.
	References added. Policy statements unchanged
4/2020	Policy updated with literature review through March 11, 2020, no references added. Policy statements unchanged.
10/2015	Ongoing investigational statement transferred from medical policy #068, Plastic Surgery.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information: <u>Medical Policy Terms of Use</u> <u>Managed Care Guidelines</u> <u>Indemnity/PPO Guidelines</u> <u>Clinical Exception Process</u> <u>Medical Technology Assessment Guidelines</u>

References

- 1. Hamilton FL, Car J, Lyons C et al. Laser and other light therapies for the treatment of acne vulgaris: systematic review. Br J Dermatol 2009; 160: 1273-1285.
- Haedersdal M, Togsverd-Bo K, Wiegell SR et al. Long-pulsed dye laser versus long-pulsed dye laserassisted photodynamic therapy for acne vulgaris: a randomized controlled trial. J Am Acad Dermatol 2008; 58(3):387-94.
- 3. Seaton ED, Charakida A, Mouser PE et al. Pulsed-dye laser treatment for inflammatory acne vulgaris: randomized controlled trial. Lancet 2003; 362(9393):1347-52.
- 4. Orringer JS, Kang S, Hamilton T et al. Treatment of acne vulgaris with a pulsed dye laser: a randomized controlled trial. JAMA 2004; 291(23):2834-9.
- 5. Orringer JS, Kang S, Maier L et al. A randomized, controlled, split-face clinical trial of 1320-nm Nd:YAG laser therapy in the treatment of acne vulgaris. J Am Acad Dermatol 2007; 56(3):432-8.
- 6. Laheta TM. Role of the 585-nm pulsed dye laser in the treatment of acne in comparison with other topical therapeutic modalities. J Cesmetic Laser Ther 2009; 11: 118-124.
- 7. http://www.skincarephysicians.com/acnenet/PhysicalProcedures.html . Last accessed October 2009.
- 8. Salameh F et al. Energy-based devices for the treatment of Acne Scars: 2022 International consensus recommendations. Lasers Surg Med. 2022 Jan;54(1):10-26.