MEDICAL POLICY

Medical Policy Title	**Light and Laser Therapies for Dermatologic Conditions**
Policy Number	**8.01.21**
Current Effective Date	**October 16, 2025**
Next Review Date	**October 2026**

Our medical policies are based on the assessment of evidence based, peer-reviewed literature, and professional guidelines. Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract. (Link to Product Disclaimer)

POLICY STATEMENT(S)

I. The following treatments are considered **medically appropriate**:

A. Ultraviolet B (UVB) light, alone or in combination with other treatment modalities (e.g., topical coal tar [Goeckerman treatment]), when **ALL** the following criteria are met:

1. In the absence of **ALL** contraindications including the following:
   a. xeroderma pigmentosum;
   b. disorders with significant light sensitivity (e.g., albinism); **and**
   c. lupus erythematosus;
2. Treatment is for **ANY** of the following indications:
   a. moderate to severe psoriasis that is not responsive to topical or systemic (e.g., methotrexate) drug therapies alone;
   b. eczema/atopic dermatitis that is not responsive to topical or systemic drug therapies alone or that interferes with an individual's normal functional capacity;
   c. cutaneous T-cell lymphoma (e.g., mycosis fungoides);
   d. vitiligo of sun-exposed regions (such as the face, neck, and dorsum of the hands) because the depigmented skin is sun-sensitive, is subject to severe sunburn, and may pose a risk for skin cancer; **or**
   e. lichen planus;

B. Psoralen Ultraviolet A (PUVA) when **ALL** the following criteria are met:

1. In the absence of **ALL** the following contraindications:
   a. xeroderma pigmentosum;
   b. disorders with significant light sensitivity (e.g., albinism);
   c. lupus erythematosus;
   d. pregnancy;
   e. breast-feeding; **and**
   f. uremia and hepatic failure;

2. Treatment is for **ANY** of the following indications:
    a. severe, disabling psoriasis that is not responsive to conservative therapy or UVB therapy;
    b. severe, disabling eczema/atopic dermatitis that is not responsive to conservative therapy or UVA/UVB therapy;
    c. cutaneous T-cell lymphoma (e.g., mycosis fungoides [MF]);
    d. vitiligo of sun-exposed regions (such as the face, neck, and dorsum of the hands) because the depigmented skin is sun-sensitive, is subject to severe sunburn, and may pose a risk for skin cancer; **or**
    e. severe lichen planus;

C. Ultraviolet A (UVA) light, alone or in combination with other treatment modalities, when **ALL** the following criteria are met:
1. In the absence of **ALL** contraindications including the following:
    a. xeroderma pigmentosum;
    b. disorders with significant light sensitivity (e.g., albinism); **and**
    c. lupus erythematosus;
2. Treatment is for **ANY** of the following indications:
    a. eczema/atopic dermatitis that is not responsive to topical or systemic drug therapies alone or that interferes with an individual's normal functional capacity; **or**
    b. lichen planus;

D. Targeted phototherapy using an excimer lamp or laser device that has received Section 510(k) approval from the U.S. Food and Drug Administration (FDA) (e.g., Fencer 308 Excimer Laser, XTRAC XL excimer laser and VTRAC excimer lamp system, BClear lamp, and European-manufactured Excilite and Excilite µ XeCL lamps) when **ALL** the following criteria are met:
1. In the absence of **ALL** contraindications including the following:
    a. xeroderma pigmentosum;
    b. disorders with significant light sensitivity (e.g., albinism); **and**
    c. lupus erythematosus;
2. Treatment is for **ANY** of the following indications:
    a. moderate-to-severe localized psoriasis comprising less than 20% of the body area for which narrowband UVB or PUVA is indicated; **or**
    b. mild-to-moderate psoriasis that is unresponsive to conservative treatment;

E. Home phototherapy utilizing UVB radiation for the treatment of moderate-to-severe

psoriasis, comprising at least 3% of the body area, **OR** eczema/atopic dermatitis, that is not responsive to conservative therapies, when **ALL** the following criteria are met:

1. In the absence of **ALL** contraindications including the following:
    a. Xeroderma pigmentosum;
    b. Disorders with significant light sensitivity (e.g., albinism); **and**
    c. Lupus erythematosus;
2. The patient's dermatologist has submitted a letter of medical necessity stating the reason that the home-based, rather than office-based, therapy is needed;
3. The patient has had ineffective courses of treatment using topical or systemic drug therapy; **and**
4. The patient is motivated and reliable, ensuring that treatment is pursued correctly and consistently and that exposures are accurately recorded;

F. Photodynamic Therapy (PDT) with 5-aminolevulinic acid (5-ALA) topical preparations, when **ALL** the following criteria are met:

1. In the absence of **ALL** contraindications including the following:
    a. Xeroderma pigmentosum;
    b. Disorders with significant light sensitivity (e.g., albinism); **and**
    c. Lupus erythematosus;
2. Treatment is for **ANY** of the following:
    a. actinic keratoses
    b. superficial basal cell skin cancer, only when surgery and/or radiation is contraindicated; **or**
    c. Bowen's disease (squamous cell carcinoma in situ), only when surgery and/or radiation is contraindicated;

G. Pulsed Dye Laser for the treatment of port wine birthmarks.

II. **ALL** of the following treatments are considered **investigational**:

A. Targeted phototherapy (e.g., the XTRAC XL and VTRAC lamp, the BClear lamp, and the European-manufactured Excilite and Excilite μ XeCL lamps) for **ANY** of the following indications:

1. first-line treatment of mild psoriasis;
2. treatment of generalized psoriasis or psoriatic arthritis; **or**
3. vitiligo;

B. PDT with topical preparations for the treatment of other dermatologic conditions, including,

but not limited to, acne vulgaris, regional squamous cell carcinoma, and non-superficial basal cell carcinoma;

C. Treatment of acne with light or laser therapy, (e.g., pulsed dye laser, smooth beam laser, photopneumatic therapy [TheraClear Acne System]).

RELATED POLICIES

Corporate Medical Policy

7.01.11 Cosmetic and Reconstructive Procedures

8.01.01 Extracorporeal Photochemotherapy/Photopheresis

8.01.06 Photodynamic Therapy for Malignant Disease

11.01.03 Experimental or Investigational Services

Administrative Policy

37 Laser Treatment of Psoriasis

POLICY GUIDELINE(S)

I. The number of treatments required for clearance and remission for both UVB and PUVA therapy is based upon the severity of the disease and the individual response to treatment. The number of psoriatic flare-ups that a person experiences in a lifetime also varies by severity of the disease.

II. UVB therapy usually begins with three (3) to five (5) sessions per week until clearing is achieved, followed by maintenance therapy with a gradual reduction in sessions until sessions are no longer required. PUVA therapy begins with two (2) to three (3) sessions per week for initial clearing, then one (1) to two (2) times a month for maintenance. If no improvement in the psoriatic lesions is seen after four (4) weeks of either UVB or PUVA therapy, treatment should be discontinued.

III. Medical necessity documentation, such as a treatment plan and/or photographs, is generally not required until after a threshold of 30 visits.

IV. The number of treatments required for clearance and remission for atopic dermatitis/eczema and for re-pigmentation in vitiligo for both UVB a PUVA therapy is based upon the severity of the disease and the individual response to treatment.;

V. In general, a phototherapy home unit should be purchased only when there is anticipation of long-term use.

VI. PUVA is rarely indicated for children or young adults because of its potential long-term side effects.

VII. Light and laser treatment should be used with caution in the following circumstances:

A. History or family history of melanoma;

B. History of non-melanoma skin cancer, extensive solar damage, and previous treatment with ionizing arsenic;

C. Pemphigus or pemphigoid;

D. Immunosuppression;

E. Cataracts and aphakia;

F. Photosensitivity; and

G. Uremia and hepatic failure.

VIII. The National Psoriasis Foundation defines the classifications of psoriasis as: Mild < 3%; Moderate 3-10%, and Severe >10%. However, the severity of psoriasis is also measured by how psoriasis affects a person's quality of life. For example, psoriasis can have a serious impact on one's daily activities even if it involves a small area such as the palms of the hands or soles of the feet.

DESCRIPTION

Ultraviolet light therapy is exposure to the skin with non-ionizing radiation for therapeutic benefit. It may involve exposure to UVB, UVA, or various combinations of UVB and UVA radiation.

Goeckerman therapy is a psoriasis treatment that was developed in 1921 and involves the use of coal tar in combination with UVB phototherapy. It is a safe and effective option for patients with severe or recalcitrant psoriasis. Coal tar and UVB are thought to work in concert to inhibit angiogenesis and keratinocyte proliferation, as well as to decrease T-lymphocyte numbers in the skin and alter inflammatory cytokine expression.

Photochemotherapy is the therapeutic use of radiation in combination with a photosensitizing chemical, currently PUVA. Psoralens make the skin more sensitive and responsive to this wavelength of light. It can be taken orally, applied topically, or added to a bath via a solution for soaking into the skin.

Excimer laser, a xenon chloride (XeCl) laser (e.g., XTRAC, Ex-308 laser), emits a narrow beam of UVB light from a handheld unit which results in a much higher concentration of UVB exposure than in the standard phototherapy unit. The use of excimer laser may shorten the number of exposures necessary, and only specific areas of the body are treated with the laser, limiting the number of exposures and the area being treated, potentially reducing the harmful effects of UV radiation.

PDT using 5-ALA has been investigated as a treatment of actinic keratoses (AK), skin cancers, and superficial dermatologic lesions such as Bowen’s disease. Levulan Kerastick is one example of a topical preparation of 5-ALA. The Levulan Photodynamic system is a two-step treatment, involving application of Levulan Kerastick, then exposure of the area to blue light via the BLU-U Blue Light Photodynamic Therapy Illuminator.

Topical application of methyl aminolevulinate (Metvix, MAL), followed by exposure with the CureLight Broadband (Model CureLight 01), a proprietary red-light source, or the PhotoCure Aktilite CL128 lamp, an LED-based narrow band (630 nm) red light technology device, is another variant of

photodynamic therapy for skin lesions. Although MAL is an approved photosensitizer for PDT, it is no longer produced in the United States (NCCN, 2025).

Pulsed Dye Lasers (PDL) which use yellow light wavelengths (585-600 nm) that selectively target both oxyhemoglobin and deoxyhemoglobin. PDLs penetrate up to 2 mm in the skin. Newborns and young children, who have thinner skin, tend to respond well to this type of laser; the response in thicker and darker lesions may be lower.

Photopneumatic devices are a combination of light therapy and vacuum suction devices that mechanically clear obstructed pores and aim to visibly reduce acne lesions. An example of this type of device is the TheraClear X Acne System (Strata Skin Sciences, Horsham, Pennsylvania).

SUPPORTIVE LITERATURE

Psoriasis

The published data has demonstrated that psoriasis has an excellent response rate when treated with either UVB or PUVA. The overall risk of complications from phototherapy and photochemotherapy are low, when compared to the thousands of patients treated with these therapies. Phototherapy and photochemotherapy have been standard treatment alternatives used by dermatologists for severe psoriasis and for vitiligo.

Peer-reviewed literature is limited; however, the published evidence supports the use of targeted phototherapy for the treatment of moderate-to-severe psoriasis comprising less than 20% of the body area for which NB-UVB or PUVA is indicated, and for the treatment of mild-to-moderate psoriasis that is unresponsive to conservative treatment. There is insufficient evidence to support the use of targeted phototherapy for the first-line treatment of mild psoriasis or for the treatment of generalized psoriasis or psoriatic arthritis.

Eczema/Atopic Dermatitis

Published data have demonstrated that phototherapy in the form of UVA, UVB and PUVA have been proven to be safe and effective treatments, with a low overall risk of complications, for eczema/atopic dermatitis.

Mycosis Fungoides

The peer-reviewed literature consists of small case series that indicate good outcomes when phototherapy in the form of PUVA and UVB is used for the treatment of mycosis fungoides, a very rare lymphoma of the skin.

Vitiligo

A 2016 systematic review identified three studies that compared targeted phototherapy with a 308 nm excimer lamp to NB-UVB and three studies that compared the excimer lamp to the excimer laser. No differences between the excimer lamp and NB-UVB were identified for the outcome of 50% or greater re-pigmentation (RR=1.14; 95% CI, 0.88 to 1.48) (Lopes). For re-pigmentation of 75% or greater, only two small studies were identified, and the relative risk was 1.81 (95% CI, 0.11 to 29.52), showing a lack of precision in the estimate. For the three studies that compared the excimer

lamp to the excimer laser, there were no significant differences between treatments for either 50% or greater re-pigmentation (RR=0.97; 95% CI, 0.84 to 1.11) or 75% or greater re-pigmentation (RR=0.96; 95% CI, 0.71 to 1.30). All treatments were most effective in lesions located on the face, with the worst response being lesions on the extremities. There was some evidence of an increase in adverse events such as blistering with targeted phototherapy.

Baeet al (2017) performed a systematic review and meta-analysis of patient response to narrowband UV-B (NBUVB) phototherapy and psoralen-UV-A (PUVA) phototherapy in the treatment of vitiligo. Inclusion criteria consisted of: (1) prospective studies; (2) participants with a diagnosis of generalized or symmetrical vitiligo; (3) at least one phototherapy group; (4) at least 10 participants in each treatment arm; (5) treatment duration of at least 12 weeks or 24 treatment sessions; (6) outcomes measured based on all vitiligo lesions on the participants whole or half body; and (7) degree of re-pigmentation based on a quartile scale. In the final analysis, 35 studies were included, with 29 studies of 1201 patients undergoing NBUVB phototherapy and nine studies of 227 patients undergoing PUVA phototherapy. A mild response (≥25%) to NBUVB phototherapy occurred in 62.1% of 130 patients in three studies at three months, 74.2% of 232 patients in 11 studies at six months, and 75.0% of 512 patients in eight studies at 12 months. A marked response, defined as ≥75%, was achieved in 13.0% of 106 patients in two studies at three months, 19.2% of 266 patients in 13 studies at six months, and 35.7% of 540 patients in nine studies at 12 months. For PUVA phototherapy, at least a mild response occurred in 51.4% of 103 patients in four studies at six months and 61.6% of 72 patients in three studies at 12 months. After at least six months of NBUVB phototherapy, at least a mild response occurred on the face and neck in 82.0% of 153 patients, and a marked response in 44.2%, while hands and feet received a mild response in 11.0% of 172 patients, and no marked responses of the same group. The authors could not determine the appropriate treatment duration of phototherapy but did verify treatment duration of at least one year to achieve maximal response and suggested at least six months of treatment to determine responsiveness to NBUVB phototherapy. Overall, treatment response to NBUVB phototherapy was better than PUVA therapy. The most responsive body sites were the face and neck, with hands and feet being the least responsive.

A 2015 systematic review (Sun 2015) was conducted of randomized, controlled trials (RCTs) that focused on treatment of vitiligo with the 308 nm excimer laser. Authors identified seven RCTs with a total of 390 patients. None of the studies was conducted in the United States. Three of the trials compared the excimer laser with an excimer lamp. Four studies compared the excimer laser with narrowband (NB)-UVB; however, two of these were not published in English, and one had a sample size of only 14 patients. The fourth study, published in 2010, did not report efficacy outcomes such as clinical response rate or re-pigmentation rate; but reported on the proportion of patients with various types of re-pigmentation: perifollicular, marginal, diffuse, or combined. Re-pigmentation rates did not differ significantly between groups treated with the excimer laser versus NB-UVB. The authors conducted a meta-analysis of the two studies that were not published in English, so results cannot be verified, but they reported that the likelihood of a minimum 50% re-pigmentation rate was significantly higher with the excimer laser, compared with NB-UVB (risk ratio, 1.39, 95% confidence interval [CI], 1.05 to 1.85) and that, in qualitative analysis, neither of these studies showed significant benefit of the excimer laser for achieving a minimum 75% re-pigmentation rate.

Studies addressing targeted phototherapy for treating vitiligo tended to have small sample sizes, few were designed to isolate the effect of laser therapy, and were heterogeneous (e.g., different interventions or combinations of interventions, and different comparison interventions), making it difficult to pool study findings or to draw conclusions about the efficacy of targeted phototherapy for vitiligo.

Actinic Keratosis

Studies demonstrate that photodynamic therapy with 5-ALA is an effective nonsurgical technique for treating non-hyperkeratotic AKs of the face and scalp, with an acceptable rate of recurrence of 19% over 12 months. In two placebo-controlled RCTs, significantly more patients had complete clearance of AKs of the upper extremities with ALA and blue light, compared to placebo at 12 weeks (Schmieder 2012; Jiang 2019).

Basal Cell Skin Cancer

Lichen Planus

Dawood et al (2022) conducted a retrospective, single-center, cohort study which showed more than half of the 192 studied patients were disease-free for at least 4.8 years after a single course of Narrowband UVB (NB UVB). Younger aged and male patients achieved better outcomes while female patients and patients with lighter skin phototypes appeared to have higher major response rates.

Weber et al (2022) compared NB UVB with psoralen plus UVA photochemotherapy in a retrospective analysis. They reported the therapeutic outcome and the number of treatments required for achieving a complete or good response were comparable for NB-UVB and PUVA. Both were very effective and demonstrated their beneficial use in patients with generalized cutaneous LP. Based on the lower rate of side effects and its greater ease of use, the authors recommended NB-UVB be considered as the first-line phototherapeutic modality for this indication. In non-responding patients or in case of unavailability of NB-UVB, oral or bath PUVA may serve as a valid alternative therapeutic measure.

Port Wine Birthmarks

Sturge-Weber syndrome (SWS) is a neurocutaneous disorder that classically presents with a triad of vascular anomalies affecting the skin, eyes, and brain. Previously, the trigeminal nerve distribution of a PWB of the face was used to identify risk of SWS. However, recent evidence has demonstrated that PWBs are vascular, not neurologic, in embryologic origin, and facial PWBs at highest risk for the brain involvement of SWS involve the forehead location. Furthermore, a PWB involving the upper or lower eyelid carries a risk of glaucoma, which requires lifelong monitoring. The gold standard of treatment for PWB is the pulsed dye laser, which has many advantages when started as early as possible in infancy. Poliner et al (2022) states based on strong evidence, PDL is safe to use in children and is the gold standard of treatment for PWBs. PDL is most effective at fading the PWB when initiated early in infancy, preferably within the first year of life. Initiating treatment at this age also optimizes psychosocial development, minimizes school absenteeism, and minimizes the need for general anesthesia during early treatments.

Sabeti et al (2021) published a consensus statement of guidelines for treating SWS and PWB with

input from 12 nationally peer-recognized experts in dermatology with experience treating patients with SWS. The committee stated Treatment of PWBs is indicated to minimize the psychosocial impact and diminish nodularity and potentially tissue hypertrophy. Better outcomes may be attained if treatments are started at an earlier age. In the US, pulsed dye laser is the standard for all PWBs regardless of the lesion size, location, or color. When performed by experienced physicians, laser treatment can be safe for patients of all ages. The choice of using general anesthesia in young patients is a complex decision that must be considered on a case-by-case basis. These recommendations are intended to help guide clinical practice and decision-making for patients with SWS and those with isolated PWBs and may improve patient outcomes.

Acne

Overall, the literature investigating the use of photodynamic therapy or photopneumatic therapy in the treatment of acne consists of very small studies in which the patient is also the control. These studies lack long-term data on effectiveness and safety. 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.

PROFESSIONAL GUIDELINE(S)

The National Institute for Health and Care Excellence (NICE) updated its Clinical Guideline for Psoriasis: Assessment and Management in 2017. The guidelines suggest offering narrowband ultraviolet B (UVB) phototherapy to people with plague or guttate-pattern psoriasis that cannot be controlled with topical treatments alone, to consider psoralen (oral or topical) with local ultraviolet A (PUVA) irradiation to treat palmoplantar pustulosis, and, when considering PUVA for psoriasis (plaque type or localized palmoplantar pustulosis), to discuss other treatment options and associated risk of increased skin cancer.

NICE procedural guidance for photodynamic therapy for non-melanoma skin tumors (including premalignant and primary non-metastatic skin lesions) were released in 2006. They state evidence of efficacy of this procedure for the treatment of basal cell carcinoma, Bowen's disease and actinic (solar) keratosis is adequate to support its use for these conditions. Evidence is limited on the efficacy of this procedure for the treatment of invasive squamous cell carcinoma. Recurrence rates are high and there is a risk of metastasis.

The American Academy of Dermatology and National Psoriasis Foundation guidelines (2019) for the management and treatment of psoriasis with phototherapy state the Goeckerman regimen is an old treatment, there are no RCTs or systematic reviews evaluating its effectiveness and long-term risks. Photo carcinogenesis is a theoretical risk but has not been demonstrated despite long-term follow-up. The most common reported adverse effects have been local burning as a result of tar sensitivity ("tar smarts"). The necessary time investment on the part of the patient is a disadvantage of Goeckerman therapy, and outpatient treatment requires close proximity to a capable medical facility. The relatively rapid and robust clinical response seen with the Goeckerman regimen, the long duration of remission, and the low adverse effect profile render Goeckerman therapy an attractive option for the treatment

of psoriasis, particularly for those with resistant disease. Because of the messy and cumbersome nature of tar application and the wide availability of highly effective NB-UVB, the Goeckerman regimen is no longer commonly used. Despite this, there is ample evidence to recommend this treatment for psoriasis.

The American Academy of Dermatology published guidelines for the management of Atopic Dermatitis recommend phototherapy as a second-line treatment, after failure of first-line treatment (emollients, topical steroids, and topical calcineurin inhibitors) (Davis 2024). Phototherapy can be used as maintenance therapy in patients with chronic disease. The light modality chosen should be guided by factors such as availability, cost, patient skin type, skin cancer history, and patient use of photosensitizing medications. Home phototherapy under the direction of a physician may be considered for patients who are unable to receive phototherapy in an office setting. Most current literature reports on the efficacy and safety of narrow band UVB. Wherever possible, use a light source that minimizes the potential for harm under the supervision of a qualified clinician.

In 2007, the International Society for Photodynamic Therapy in Dermatology published consensus-based guidelines on the use of PDT for nonmelanoma skin cancer. Based on efficacy and cosmetic outcome, the authors recommended PDT as a first-line therapy for actinic keratosis (Braathen 2007). The guideline recommended photodynamic therapy for superficial basal cell carcinoma as "a viable alternative when surgery would be inappropriate, or the patient or physician wishes to maintain normal skin appearance" and concludes that photodynamic therapy is at least as effective as cryotherapy or 5-FU for Bowen's disease. The authors found insufficient evidence to support the routine use of topical photodynamic therapy for squamous cell carcinoma.

In a 2021 Executive Summary, the American Academy of Dermatology published guidelines for the care and management of actinic keratosis [AK], which included conditional recommendations for the use of ALA red-light PDT or ALA blue-light PDT treatment for AKs and considered the associated risks of skin irritation, pain and cosmesis to represent a minimal potential for harm (Eisen). They highlighted the conditional recommendation is based on limited quality of evidence, however, noted that there is evidence suggesting complete clearance of AK with repeated treatment of ALA-PDT.

The National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines for basal cell skin cancer (NCCN 2025) indicate, that while cure rates are approximately 10% lower than for surgical treatment modalities, topical therapies including topical imiquimod, topical 5-fluroruracil (5-FU), photodynamic therapy (e.g., aminolevulinic acid [ALA], porifimer sodium) or cryotherapy may be considered as well as recommended when surgery is contraindicated or impractical. The guidelines report that most studies have focused on the superficial and nodular histologic subtypes, and several have found higher cure rates for superficial versus nodular subtypes in both low- and high-risk locations. Compared to other superficial therapies, PDT has similar efficacy as cryotherapy but with much better cosmetic outcomes. The literature has demonstrated varied results in comparison of PDT and imiquimod.

The NCCN Clinical Practice Guidelines for Squamous Cell Skin Cancer (NCCN 2025) state in patients with cutaneous squamous cell cancer (CSCC) in situ (Bowen disease), therapies such as photodynamic therapy (e.g., ALA, Porfimer sodium) may be considered. PDT wit photosensitizing agents including methyl aminolevulinate (MAL) and 5-aminolevulinic acid (ALA) or porfimer sodium is

another option for superficial SCC. MAL is no longer produced in the United States.

The NCCN Clinical Practice Guidelines for Primary Cutaneous Lymphoma (NCCN 2025) state UVB, including narrowband-UVB and PUVA/UVA are effective treatment options for patients with early-stage MF. Narrowband-UVB is the most common phototherapy approach and less skin damaging than PUVA/UVA. While some retrospective studies have reported that PUVA results in better responses and improved disease-free survival, others have reported that UVB is as effective as PUVA for the treatment of early-stage MF. It may be beneficial to start with narrowband-UVB than PUVA in patients with early patch stage or thin plaque disease since narrowband-UVB has less skin toxicity than broadband UVB and PUVA.

The European Academy of Dermatology and Venereology released guidelines on the management of lichen planus which state squamous cell carcinoma may arise from mucosal lesions (mouth, vulva, penile) and hypertrophic LP lesions (distal extremities) (Ioannides 2020). Case reports of SCC emerging from hypertrophic cutaneous LP lesions or chronic anogenital or esophageal lesions have been described. Persistent ulcers/lesions should undergo biopsy, particularly when resistant to therapy. Infections, osteoporosis, adrenal insufficiency, bone marrow suppression, renal damage and hyperlipidemia may occur due to medication. Lichen planus is a chronic disease, and the primary focus of treatment is to control symptoms and minimize damage. The treatment should be associated with the severity of the disease and the less possible side-effects and should improve the patients' quality of life. First line treatment for cutaneous LP includes topical medications. When LP persists second-line treatments recommended are broadband or narrowband UVB, and combination of UV and acitretin. Third line treatment includes photodynamic therapy and Nd-YAG laser, low-dose 308 nm excimer laser.

The American Academy of Pediatrics clinical practice guidelines for the management of infantile hemangiomas (IH) state there is a window of opportunity to treat problematic IHs (Krowchuck 2019). Consult early (by 1 month of age) for lesions that are potentially high risk because of potential for disfigurement, life-threatening complications, functional impairment, ulceration and underlying abnormalities. Surgery and/or laser treatment are most useful for the treatment of residual skin changes after involution. They may be used earlier to treat selected His. PDL has been used for several decades to treat IHs. There is wide recognition that PDL is effective and safe in removing residual macular erythema and superficial telangiectasias in involuting or involuted IHs, but it often requires several treatments to achieve optimal results.

American Academy of Dermatology 2024 guidelines for care of Acne Vulgaris state the available evidence is insufficient to develop a recommendation on the use of acne lesion/comedo extraction, laser and light-based devices, or photodynamic therapy with aminolevulinic acid for the treatment of acne (Reynolds). This includes 585-595 nm pulsed dye laser, neodymium-doped yttrium aluminum garnet laser, 1450 diode laser, potassium titanyl phosphate laser, infrared light-emitting diode, 635-670 nm red light, combined 420 nm blue light and 660 nm red light, 589 nm/1319 nm laser, or intense pulsed light. The ADD also conditionally recommends against adding pneumatic broadband light to adapalene 0.3% gel based on low certainty evidence from one (1) study. Adding pneumatic broadband light to adapalene did not reduce acne lesion counts and was associated with risks of hyperpigmentation and purpura (Tangjaturonrusamee 2016).

REGULATORY STATUS

The United States Food and Drug Administration (FDA) regulates lasers and phototherapy as medical devices. All lasers and phototherapy including related components require FDA approval before marketing and use in the United States to ensure they are safe and effective for human use. Refer to the FDA Medical Device website. Available from: https://www.fda.gov/medical-devices [accessed 2025 Sep 16]

CODE(S)

- Codes may not be covered under all circumstances.
- Code list may not be all inclusive (AMA and CMS code updates may occur more frequently than policy updates).
- (E/I)=Experimental/Investigational
- (NMN)=Not medically necessary/appropriate

CPT Codes

Code	Description
10040 (*E/I)	Acne surgery (e.g., marsupialization, opening or removal of multiple milia, comedones, cysts, pustules) *E/I when utilized for TheraClear Acne System
17106	Destruction of cutaneous vascular proliferative lesions (e.g., laser technique); less than 10 sq cm
17107	Destruction of cutaneous vascular proliferative lesions (e.g., laser technique); 10.0 to 50.0 sq cm
17108	Destruction of cutaneous vascular proliferative lesions (e.g., laser technique); over 50.0 sq cm
96567	Photodynamic therapy by external application of light to destroy premalignant lesions of the skin and adjacent mucosa with application and illumination/activation of photosensitive drug(s), per day
96573	Photodynamic therapy by external application of light to destroy premalignant lesions of the skin and adjacent mucosa with application and illumination/activation of photosensitizing drug(s) provided by a physician or other qualified health care professional, per day
96574	Debridement of premalignant hyperkeratotic lesion(s) (i.e., targeted curettage, abrasion) followed with photodynamic therapy by external application of light to destroy premalignant lesions of the skin and adjacent mucosa with application and illumination/activation of photosensitizing drug(s) provided by a physician or other qualified health care professional, per day
96900	Actinotherapy (ultraviolet light)

Code	Description
96910	Photochemotherapy; tar and ultraviolet B (Goeckerman treatment) or petrolatum and ultraviolet B
96912	Photochemotherapy; psoralens and ultraviolet A (PUVA)
96913	Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least 4-8 hours of care under direct supervision of the physician (includes application of medication and dressings)
96920	Excimer laser treatment for psoriasis; total area less than 250 sq cm
96921	Excimer laser treatment for psoriasis; 250 sq cm to 500 sq cm
96922	Excimer laser treatment for psoriasis; over 500 sq cm

HCPCS Codes

Code	Description
E0691	Ultraviolet light therapy system, includes bulbs/lamps, timer, and eye protection; treatment area 2 sq ft or less
E0692	Ultraviolet light therapy system panel, includes bulbs/lamps, timer and eye protection, 4 ft panel
E0693	Ultraviolet light therapy system panel, includes bulbs/lamps, timer and eye protection, 6 ft panel
E0694	Ultraviolet multidirectional light therapy system in 6 ft cabinet, includes bulbs/lamps, timer, and eye protection

ICD10 Codes

Code	Description
C44.00-C44.99	Other and unspecified malignant neoplasm of skin (code range)
C80.0-C80.2	Malignant neoplasm without specification of site (code range)
C84.00-C84.09	Mycosis fungoides; code range
C84.10-C84.19	Sézary disease; code range
D04.0-D04.9	Carcinoma in situ of skin (code range)
L40.0-L40.9	Psoriasis (code range)
L43.0 -L43.9	Lichen planus (code range)
L57.0	Actinic keratosis
L70.0-L70.9	Acne (code range)

Code	Description
(E/I)	
L73.0 (E/I)	Acne keloid
L80	Vitiligo
Q82.5	Congenital non-neoplastic nevus

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SEARCH TERMS

Aminolevulinic acid, BClear lamp, Excilite lamp, Levulan Kerastick, methyl aminolevulinate, Metvix, Narrow band ultraviolet B, Psoralens, PUVA, Ultraviolet light, UVA, UVB, xenon chloride laser, XeCL, XTRAC, VTRAC lamp.

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

Treatment of Psoriasis (NCD 250.1) [accessed 2025 Sep 16]

Treatment of Actinic Keratosis (NCD 250.4) [accessed 2025 Sep 16]

PRODUCT DISCLAIMER

- Services are contract dependent; if a product does not cover a service, medical policy criteria do not apply.
- If a commercial product (including an Essential Plan or Child Health Plus product) covers a specific service, medical policy criteria apply to the benefit.
- If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit.
- If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.
- If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line.

POLICY HISTORY/REVISION

Committee Approval Dates	
09/21/06, 09/20/07, 07/17/08, 09/17/09, 10/28/10, 09/15/11, 09/20/12, 09/19/13, 09/18/14, 09/17/15, 09/15/16, 09/21/17, 09/20/18, 08/15/19, 10/22/20, 08/19/21, 08/18/22, 08/17/23, 10/17/24, 10/16/25	
Date	**Summary of Changes**
10/16/25	• Annual review, policy intent unchanged.
01/01/25	• Summary of changes tracking implemented.
09/21/06	• Original effective date