OVERVIEW
Light therapy for psoriasis includes both targeted phototherapy and photochemotherapy with psoralen plus ultraviolet A (PUVA). Targeted phototherapy describes the use of ultraviolet light that can be focused on specific body areas or lesions. PUVA uses a psoralen derivative in conjunction with long wavelength ultraviolet A (UVA) light (sunlight or artificial) for photochemotherapy of skin conditions.

PRIOR AUTHORIZATION
None

POLICY STATEMENT
PUVA for the treatment of severe, disabling psoriasis, which is not responsive to other forms of conservative therapy (e.g., topical corticosteroids, coal/tar preparations, and ultraviolet light), may be considered medically necessary.

Targeted phototherapy may be considered medically necessary for the treatment of mild to moderate localized psoriasis that is unresponsive to conservative treatment, and the treatment of moderate to severe localized psoriasis (i.e., comprising less than 20% body area) for which NB-UVB or PUVA is indicated. For all other indications, Targeted phototherapy is considered not medically necessary as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

MEDICAL CRITERIA
None

BACKGROUND
Psoralens with ultraviolet A (UVA) uses a psoralen derivative in conjunction with long wavelength UVA light (sunlight or artificial) for photochemotherapy of skin conditions. Psoralens are tricyclic furocoumarins that occur in certain plants and can also be synthesized. They are available in oral and topical forms. Oral PUVA is generally given 1.5 hours before exposure to UVA radiation. Topical PUVA therapy refers to directly applying the psoralen to the skin with subsequent exposure to UVA light.

PUVA has most commonly been used to treat severe psoriasis, for which there is no generally accepted first-line treatment. Each treatment option (e.g., systemic therapies such as methotrexate, phototherapy, biologic therapies, etc.) has associated benefits and risks. Common minor toxicities associated with PUVA include erythema, pruritis, irregular pigmentation, and gastrointestinal tract symptoms; these generally can be managed by altering the dose of psoralen or UV light. Potential long-term effects include photoaging and skin cancer, particularly squamous cell carcinoma (SCC) and possibly malignant melanoma. PUVA is generally considered more effective than targeted phototherapy for the treatment of psoriasis. However, the requirement of systemic exposure and the higher risk of adverse reactions (including a higher carcinogenic risk) have generally limited PUVA therapy to patients with more severe cases.

Potential advantages of targeted phototherapy include the ability to use higher treatment doses and to limit exposure to surrounding tissue. Broadband ultraviolet B (BB-UVB) devices, which emit wavelengths from
290 to 320 nm, have been largely replaced by narrowband (NB)-UVB devices. NB-UVB devices eliminate wavelengths below 296 nm, which are considered erythemogenic and carcinogenic but not therapeutic. NB-UVB is more effective than BB-UVB and approaches PUVA in efficacy. Original NB-UVB devices consisted of a Phillips TL-01 fluorescent bulb with a maximum wavelength (lambda max) at 311 nm. Subsequently, xenon chloride (XeCl) lasers and lamps were developed as targeted NB-UVB treatment devices; they generate monochromatic or very narrow band radiation with a lambda max of 308 nm. Targeted phototherapy devices are directed at specific lesions or affected areas, thus limiting exposure to the surrounding normal tissues. They may therefore allow higher dosages compared to a light box, which could result in fewer treatments to produce clearing.

The original indication of the excimer laser was for patients with mild to moderate psoriasis, defined as involvement of less than 10% of the skin. Typically, these patients have not been considered candidates for light box therapy, since the risks of exposing the entire skin to the carcinogenic effects of UVB light may outweigh the benefits of treating a small number of lesions. Newer XeCl laser devices are faster and more powerful than the original models, which may allow treatment of patients with more extensive skin involvement, 10–20% of body surface area. The American Academy of Dermatology does not recommend phototherapy for patients with mild localized psoriasis whose disease can be controlled with topical medications. (1) A variety of topical agents are available including steroids, coal tar, vitamin D analogues (e.g., calcipotriol and calcitriol), tazarotene, and anthralin.

Established treatments for psoriasis include use of topical ointments and ultraviolet light (“light lamp”) treatments. Lasers and targeted ultraviolet B (UVB) lamps are considered equivalent devices; targeted UV devices are comparable to UV light panels for treatment purposes. First-line treatment of UV-sensitive lesions may involve around 6–10 office visits; treatment of recalcitrant lesions may involve around 24–30 office visits. Maintenance therapy or repeat courses of treatment may be required.

During a course of PUVA therapy, the patient needs to be assessed on a regular basis to determine the effectiveness of the therapy and the development of adverse effects. These evaluations are essential to ensure that the exposure dose of radiation is kept to the minimum compatible with adequate control of disease. Therefore, PUVA is generally not recommended for home therapy.

Evidence from randomized controlled trials suggests that PUVA is at least as effective as NB-UVB for patients with moderate to severe psoriasis. In addition, PUVA for severe treatment-resistant psoriasis is well-accepted and is recommended by the American Academy of Dermatology. There is a lack of evidence that home-based PUVA for treating psoriasis is as safe or effective as office-based treatment.

Targeted phototherapy describes the use of ultraviolet light that can be focused on specific body areas or lesions. The literature supports the use of targeted phototherapy for the treatment of moderate to severe psoriasis comprising less than 20% body area for which narrowband ultraviolet B (NB-UVB) or photochemotherapy with psoralen plus ultraviolet (PUVA) are indicated, and for the treatment of mild to moderate localized psoriasis that is unresponsive to conservative treatment. Evidence is lacking for the use of targeted phototherapy for the first-line treatment of mild psoriasis or for the treatment of generalized psoriasis or psoriatic arthritis, therefore it is considered not medically necessary as there is no proven efficacy.

Psoriasis is a chronic immune-mediated inflammatory skin condition. There are several conventional methods of treatment, including topical application of steroids or other drugs, ultraviolet light (actinotherapy), and coal tar alone or in combination with ultraviolet light B. Severe psoriasis, which has not been responsive to conventional therapies, may be effectively treated with either phototherapy or photochemotherapy.

Phototherapy is the use of ultraviolet light B (UVB) or A (UVA) for the treatment of severe cases of psoriasis. Ultraviolet (UV) light induces biologic reactions in the skin’s cells that decrease the number of skin cells that grow too quickly and kill T cells in the skin, which can result in the clearing of psoriatic lesions.
Photochemotherapy, also called PUVA therapy, utilizes ultraviolet light A (UVA) in combination with the photosensitizing agent psoralen. Treatment requires the patient to ingest, topically apply, or bathe in psoralen before being exposed to UVA rays. PUVA therapy is used in the treatment of intractable, disabling psoriasis by combining the psoralen and UVA, which slows the rapid growth of skin cells and kills T cells in the skin. PUVA therapy is considered more effective than UVB. However, the requirement of systemic exposure and the higher risk of adverse reactions have generally limited PUVA therapy to patients with severe forms of psoriasis.

Laser treatment, also called ultraviolet B laser therapy or targeted laser therapy is essentially a different technique of narrow-band UVB therapy which has its effect through highly concentrated radiation beams interrupting the cellular process that causes overproduction of skin cells. The unique aspect of the laser therapy is that it allows for specific targeting of individual skin lesions, limiting UV exposure of normal skin and permitting higher treatment dosages when compared to light box phototherapy. It is proposed that these benefits will ultimately result in fewer treatments to produce clearing with fewer side effects. Examples of these devices are the XeCl excimer laser (XTRAC), XRACxl, VTRAC lamp (PhotoMedex), the BClear lamp (Lumenis).

Phototherapy and photochemotherapy (PUVA) are generally used for the treatment of severe psoriasis, eczema, and neoplastic disease (i.e., cutaneous T-cell lymphoma) when the skin disease has not responded to conventional methods of treatments.

Laser therapy is normally used for the treatment of moderate to severe psoriasis when the skin disease has not responded to conventional methods of treatments.

**COVERAGE**

BlueCHIP for Medicare and Commercial:
Benefits may vary between groups/contracts. Please refer to the appropriate member certificate/subscriber agreement for applicable medical services benefits/coverage.

**CODING**

BlueCHIP for Medicare and Commercial:
The following codes for dermatological services are covered:

- 96900, 96912, 96913, 96920, 96921, 96922

**RELATED POLICIES**

None

**PUBLISHED**

- Provider Update 2013
- Provider Update Jun 2012
- Provider Update Mar 2011
- Policy Update Mar 2008
- Policy Update Jan 2007
- Policy Update Jun 2004

**REFERENCES**


