

MEDICAL POLICY		Port-wine Stain Laser Treatment	
<b>Effective Date: 1/1/2020</b>		Section: MED	Policy No.: 308
 1/1/2020		Medical Policy Committee Approved Date: 5/02; 5/03;11/04; 11/06; 9/08; 8/10; 10/12; 8/13; 10/14; 10/15; 8/16; 2/17; 2/18; 8/19; 12/19	
Medical Officer	Date		

See Policy CPT/HCPCS CODE section below for any prior authorization requirements

## SCOPE:

Providence Health Plan, Providence Health Assurance, Providence Plan Partners, and Ayin Health Solutions as applicable (referred to individually as “Company” and collectively as “Companies”).

## APPLIES TO:

All lines of business

## BENEFIT APPLICATION

### Medicaid Members

*Oregon:* Services requested for Oregon Health Plan (OHP) members follow the OHP Prioritized List and Oregon Administrative Rules (OARs) as the primary resource for coverage determinations. Medical policy criteria below may be applied when there are no criteria available in the OARs and the OHP Prioritized List.

### POLICY CRITERIA

- I. Laser therapy for port-wine stain may be considered **medically necessary and covered** when **one or more** of the following (A-C) criteria are met:
  - A. Have a likelihood of involution leading to future problems. These are usually large and disfiguring; **or**
  - B. Are growing or having cellular changes; **or**
  - C. Have characteristics of potentially causing neoplasms.
  
- II. Laser therapy is considered **cosmetic and is not covered** as a treatment of port-wine stain when the above criteria I. are not met.

Link to [Policy Summary](#)

**CPT CODES**

All Lines of Business	
Prior Authorization Required	
17106	Destruction of cutaneous vascular proliferative lesions (eg, laser technique); less than 10 sq cm
17107	Destruction of cutaneous vascular proliferative lesions (eg, laser technique); 10.0 to 50.0 sq cm
17108	Destruction of cutaneous vascular proliferative lesions (eg, laser technique); over 50.0 sq cm

**DESCRIPTION**

Port-wine Stains

Port wine stains (nevus flammeus) are capillary malformations occurring from vascular anomalies that cause discoloration of the skin.<sup>1</sup> Present at birth, port wine stains (PWS) are most commonly singular in occurrence. They are distinct from infantile hemangiomas. Rarely, they occur as part of a larger constellation of malformation syndromes. As a child grows, the pink to red patches grow in proportion to the child’s growth, the red color deepens, and the area thickens. Capillary malformations occur in 0.1 to 2 percent of newborns. The etiology is unknown.

Laser Treatment of Port-wine Stains

Treatment of PWS in its macular stage (childhood) may prevent the development of the hypertrophic component of the lesion. Laser treatment of a PWS diminishes the existing blood vessels making them smaller and fewer in number, reducing the progression of these lesions.

**REVIEW OF EVIDENCE**

A review of the ECRI, Hayes, Cochrane, and PubMed databases was conducted regarding the use of laser treatment for port-wine stains. Below is a summary of the available evidence identified through December of 2019.

A 2011 systematic review by Cochrane included 5 randomized controlled trials (RCTs) involving 103 subjects to evaluate (pulsed dye laser) PDL against other light sources.<sup>2</sup> PDL resulted in more than 25% reduction in redness in 50-100% of the participants. This result was after 1 to 3 treatments for up to 4-6 months post operatively. The authors concluded the PDL leads to clinically relevant clearance of PWS.

Additional, small, nonrandomized studies were identified which support the use of laser treatment of port wine stains.<sup>3-5</sup>

## CLINICAL PRACTICE GUIDELINES

No evidence-based clinical practice guidelines were identified regarding the use of laser treatments for port-wine stains.

## CENTERS FOR MEDICARE & MEDICAID

As of December 2019, no Centers for Medicare & Medicaid (CMS) coverage guidance was identified which addresses laser treatment of port wine stains.

## POLICY SUMMARY

There are limited large studies regarding pulsed dye laser to treat port wine stains (capillary malformations). However, the evidence does demonstrate that PDL is an effective method for reducing the progression of skin thickening and lesion formation, and is therefore considered standard of care.

## INSTRUCTIONS FOR USE

Company Medical Policies serve as guidance for the administration of plan benefits. Medical policies do not constitute medical advice nor a guarantee of coverage. Company Medical Policies are reviewed annually and are based upon published, peer-reviewed scientific evidence and evidence-based clinical practice guidelines that are available as of the last policy update. The Companies reserve the right to determine the application of Medical Policies and make revisions to Medical Policies at any time. Providers will be given at least 60-days notice of policy changes that are restrictive in nature.

The scope and availability of all plan benefits are determined in accordance with the applicable coverage agreement. Any conflict or variance between the terms of the coverage agreement and Company Medical Policy will be resolved in favor of the coverage agreement.

## REGULATORY STATUS

### Mental Health Parity Statement

Coverage decisions are made on the basis of individualized determinations of medical necessity and the experimental or investigational character of the treatment in the individual case.

## MEDICAL POLICY CROSS REFERENCES

[Cosmetic and Reconstructive Procedures \(All Lines of Business Except Medicare\), SUR196](#)

[Cosmetic and Reconstructive Surgery \(Medicare Only\), SUR441](#)

## REFERENCES

1. Capillary malformations (port wine stains) and associated syndromes. UpToDate. Literature review current through: Nov 2019. | This topic last updated: Jun 18, 2019. <https://www.uptodate.com/contents/capillary-malformations-port-wine-stains-and-associated-syndromes>. Accessed 12/10/2019.
2. Faurshou A, Olesen AB, Leonardi-Bee J, Haedersdal M. Lasers or light sources for treating port-wine stains. *Cochrane Database Syst Rev*. 2011(11):CD007152. <https://www.ncbi.nlm.nih.gov/pubmed/22071834>
3. Murthy AS, Dawson A, Gupta D, Spring S, Cordoro KM. Utility and tolerability of the long-pulsed 1064-nm neodymium:yttrium-aluminum-garnet (LP Nd:YAG) laser for treatment of symptomatic or disfiguring vascular malformations in children and adolescents. *J Am Acad Dermatol*. 2017;77(3):473-479. <https://www.ncbi.nlm.nih.gov/pubmed/28578999>
4. Al-Dhalimi MA, Al-Janabi MH. Split lesion randomized comparative study between long pulsed Nd:YAG laser 532 and 1,064 nm in treatment of facial port-wine stain. *Lasers Surg Med*. 2016;48(9):852-858. <https://www.ncbi.nlm.nih.gov/pubmed/27669109>
5. Perruchoud DL, Cazzaniga S, Heidemeyer K, et al. Treatment of sporadic port-wine stains: a retrospective review of 17 cases consecutively treated by pulsed sequential dual wavelength 595 and 1064 nm laser. *J Eur Acad Dermatol Venereol*. 2017;31(3):557-563. <https://www.ncbi.nlm.nih.gov/pubmed/27658196>