

## Medical Policy

Pulsed Dye Laser Therapy for Port Wine Stain	
<b>MEDICAL POLICY NUMBER</b>	MED_Clin_Ops_005
<b>ORIGINAL EFFECTIVE DATE</b>	February 7, 2017
<b>CURRENT VERSION EFFECTIVE DATE</b>	January 1, 2024
<b>APPLICABLE PRODUCT AND MARKET</b>	<i>Individual Family Plan: All Plans</i> <i>Small Group: All Plans</i> <i>Medicare Advantage: All Plans</i>

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### PURPOSE

The purpose of this policy is to establish the clinical review criteria that support the determination of medical necessity of pulsed dye laser therapy for port wine stain.

### POLICY

#### Clinical Review Criteria

Pulsed dye laser therapy for Port Wine Stain may be authorized when **ANY** of the following are met:

- 1) The member is less than 6 years of age and the lesion is on the face (not the neck), or the lesion abuts the rectum or urethra.
- 2) The lesion is associated with recurrent bleeding, infection, pain or ulceration, or when there is documented evidence of physical functional impairment.

In all other circumstances, pulsed dye laser therapy for port wine stain will be considered cosmetic and will not be authorized.

### BACKGROUND

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Port wine stains are the most common of the vascular malformations, affecting approximately 3 in 1000 children. They are composed of networks of ectatic vessels and primarily involve the papillary dermis. Unlike many other birthmarks, port wine stains do not resolve spontaneously. In contrast, they typically begin as pink macules and become redder and thicker over time due to decreased sympathetic innervation. The depth of the skin lesions ranges from about 1 to 5 mm. Port wine stains are generally located on the face and neck, but can occur in other locations such as the trunk or limbs.

Prior to the availability of laser treatment in the 1980s, there were no effective therapies for port wine stains. A laser is a highly focused beam of light that is converted to heat when absorbed by pigmented skin lesions. Several types of lasers have been used to treat port wine stains. Currently, the most common in clinical practice is the pulsed dye laser.

Port wine stain may progress and worsen in dimension and symptoms without treatment. Therefore, while the lesion may be asymptomatic and not immediately near an orifice at birth, without treatment it may enlarge, deepen, or progress in angiogenic meshing without treatment, and result in infection, bleeding, or impingement of the bodily function. Pulsed dye laser treatment for Port Wine stain is considered gold standard therapy, with minimal discomfort or risk for harm. Treatment efficacy may plateau but minimizes risk for progression of lesion.

## DEFINITIONS

1. **Authorization:** A decision by Brand New Day/Central Health Medicare Plan that a health care service, treatment plan, prescription drug or durable medical equipment is medically necessary or meets other member contract terms. Sometimes called prior authorization, prior approval or precertification. Brand New Day/Central Health Medicare Plan requires preauthorization for certain services before a member receives them, except in an emergency. Authorization is not a promise that Brand New Day/Central Health Medicare Plan will cover the cost.
2. **Port wine stain (*nevus flammeus*),** also commonly called a **firemark**, is a discoloration of the human skin caused by a vascular anomaly (a capillary malformation in the skin). They are so named for their coloration, which is similar in color to port wine, a fortified red wine from Portugal. A port wine stain is almost always a birthmark; in rare cases, it can develop in early childhood. Either way, port wine stains ordinarily persist throughout life. Port wine stains may be part of a syndrome such as Sturge–Weber syndrome or Klippel–Trénaunay–Weber syndrome.
3. **Dye laser** is a laser which uses an organic dye as the lasing medium, usually as a liquid solution. Compared to gases and most solid-state lasing media, a dye can usually be used for a much wider range of wavelengths, often spanning 50 to 100 nanometers or more. The wide bandwidth makes them particularly suitable for pulsed lasers.

## CODING CPT CODES

**Medical Policy**

17106, 17107, 17108

**Medical Policy**

**EVIDENCE BASED REFERENCES**

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Passeron T, Maza A, Fontas E Et al. Treatment of port wine stains with pulsed dye laser and topical timolol: a multicenter randomized controlled trial. Br J Dermatol 2013.

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Reddy, LA, “Laser Treatment of Port Wine Stain”, Clin Cosmet Investig Dermatology, 2015

Tremaine AM, Armstrong J, Huang YC et al. Enhanced port-wine stain lightening achieved with combined treatment of selective photothermolysis and imiquimod. J Am Acad Dermatol 2012; 66(4):634-41.

Zheng JW, Zhang L, Zhou Q, et al. A practical guide to treatment of infantile hemangiomas of the head and neck. International Journal of Clinical and Experimental Medicine. 2013;6(10):851-860.

**POLICY HISTORY**

Original Effective Date	February 07, 2017
Revised Date	December 18, 2018 – noted applies to new 2019 markets April 29, 2019 – Annual review, no changes noted February 1, 2020 – updated to include appropriate 2020 markets December 20, 2020 – Small Group added as applicable product April 15, 2021 – Annual review; template and formatting updates April 29, 2022 – Annual review

*Approved by the Utilization Management Committee 5/6/2022*