



Low Level Laser Therapy – LLLT for Oral Mucositis

LOB(s): <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Medicare <input checked="" type="checkbox"/> Medicaid	State(s): <input checked="" type="checkbox"/> Idaho <input checked="" type="checkbox"/> Montana <input checked="" type="checkbox"/> Oregon <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Oregon <input type="checkbox"/> Washington
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Enterprise Policy

PacificSource is committed to assessing and applying current regulatory standards, widely-used treatment guidelines, and evidenced-based clinical literature when developing clinical criteria for coverage determination. Each policy contains a list of sources (references) that serves as the summary of evidence used in the development and adoption of the criteria. The evidence was considered to ensure the criteria provide clinical benefits that promote patient safety and/or access to appropriate care. Each clinical policy is reviewed, updated as needed, and readopted, at least annually, to reflect changes in regulation, new evidence, and advancements in healthcare.

Clinical Guidelines are written when necessary to provide guidance to providers and members in order to outline and clarify coverage criteria in accordance with the terms of the Member's policy. This Clinical Guideline only applies to PacificSource Health Plans, PacificSource Community Health Plans, and PacificSource Community Solutions in Idaho, Montana, Oregon, and Washington. Because of the changing nature of medicine, this list is subject to revision and update without notice. This document is designed for informational purposes only and is not an authorization or contract. Coverage determinations are made on a case-by-case basis and subject to the terms, conditions, limitations, and exclusions of the Member's policy. Member policies differ in benefits and to the extent a conflict exists between the Clinical Guideline and the Member's policy, the Member's policy language shall control. Clinical Guidelines do not constitute medical advice nor guarantee coverage.

Background

Oral mucositis is a frequent and severe side effect of oncologic treatments. Low-level laser therapy (LLLT), also known as cold laser or photobiomodulation, is used for the prevention or treatment of oral mucositis due to chemotherapy or radiotherapy treatment for cancer diagnoses. LLLT is thought to have an anti-inflammatory effect by inhibiting prostaglandin concentration and does not produce sensation or burn skin with direct application to affected areas.

Criteria

Commercial

Prior authorization is required

PacificSource may consider Low-level laser therapy (LLLT) to be medically necessary for prevention or treatment of oral mucositis in patients undergoing cancer treatment associated with an increased risk of oral mucositis, including chemotherapy and/or radiotherapy, and/or hematopoietic cell transplantation.

Medicaid

PacificSource Community Solutions follows an internal hierarchal process in the "Clinical Criteria Used in UM Decisions" policy for coverage of Low-level laser treatment (LLLT). PCS covers these services when the condition and service(s) pair on a funded line on the HERC Prioritized List of Health Services, any relevant Guideline criteria is fulfilled, and service(s) are medically/orally necessary and appropriate

for the specific member. Additional coverage options for unfunded conditions and services are provided as described in Covered Services OAR 410-141-3820. Treatment of Low-level laser treatment (LLLT) may be limited or excluded if the service meets the criteria outlined in OARs 410-141-3825 and 410-120-1200, except as otherwise provided in the Covered Services Rule.

PacificSource follows the “Early and Periodic Screening, Diagnostic, and Treatment (EPSDT)” criteria for members under 21 and Young Adults with Special Health Care Needs (YSHCN).

Medicare

PacificSource Medicare follows CMS guidelines and criteria. In the absence of CMS criteria, internal policy guidelines and evidence-based criteria, requests are reviewed on an individual basis for determination of coverage and medical necessity. CPT S codes are not covered by Medicare.

Experimental/Investigational/Unproven

PacificSource considers Low-level laser treatment (LLLT) to be experimental, investigational, or unproven for all other indications.

Coding Information

The following list of codes are for informational purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

- 0552T Low-level laser therapy, dynamic photonic and dynamic thermokinetic energies, provided by a physician or other qualified health care profession
- 97037 Application of a modality to 1 or more areas; low-level laser therapy (e.g., nonthermal and non-ablative) for post-operative pain reduction.
- S8948 Application of a modality (requiring constant provider attendance) to one or more areas; low-level laser; each 15 minutes

CPT® codes, descriptions and materials are copyrighted by the American Medical Association (AMA).

HCPCS® codes, descriptions and materials are copyrighted by Centers for Medicare and Medicaid Services (CMS).

Related Policies

Clinical Criteria Used in UM Decisions

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT)

References

Antunes, H. S., Herchenhorn, D., Small, I. A., Araújo, C. M. M., Viégas, C. M. P., de Assis Ramos, G., Dias, F. L., & Ferreira, C. G. (2017). Long-term survival of a randomized phase III trial of head and neck cancer patients receiving concurrent chemoradiation therapy with or without low-level laser therapy (LLLT) to prevent oral mucositis. *Oral oncology*, 71, 11–15.

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Antunes, H. S., Ferreira, E. M., de Matos, V. D., Pinheiro, C. T., & Ferreira, C. G. (2008). The Impact of low power laser in the treatment of conditioning-induced oral mucositis: a report of 11 clinical cases and their review. *Medicina oral, patologia oral y cirugia bucal*, 13(3), E189–E192.

Biala M. (2022). Low-Level Laser Therapy: A Literature Review of the Prevention and Reduction of Oral Mucositis in Patients Undergoing Stem Cell Transplantation. *Clinical journal of oncology nursing*, 26(3), 293–299. <https://doi.org/10.1188/22.CJON.293-299>

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Ferreira, B., da Motta Silveira, F. M., & de Orange, F. A. (2016). Low-level laser therapy prevents severe oral mucositis in patients submitted to hematopoietic stem cell transplantation: a randomized clinical trial. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer*, 24(3), 1035–1042. <https://www.ncbi.nlm.nih.gov/pubmed/26248655>

Oberoi, S., Zamperlini-Netto, G., Beyene, J., Treister, N. S., & Sung, L. (2014). Effect of prophylactic low level laser therapy on oral mucositis: a systematic review and meta-analysis. *PloS one*, 9(9), e107418. <https://doi.org/10.1371/journal.pone.0107418>

Oregon Administrative Rules (OARs). Oregon Health Authority. Health Systems: Medical Assistance Programs – Chapter 410
<https://secure.sos.state.or.us/oard/displayChapterRules.action?selectedChapter=87>

Peng, J., Shi, Y., Wang, J., Wang, F., Dan, H., Xu, H., & Zeng, X. (2020). Low-level laser therapy in the prevention and treatment of oral mucositis: a systematic review and meta-analysis. *Oral surgery, oral medicine, oral pathology, and oral radiology*, 130(4), 387–397.e9.
<https://doi.org/10.1016/j.oooo.2020.05.014>

Sung, L., Robinson, P., Treister, N., Baggott, T., Gibson, P., Tissing, W., Wiernikowski, J., Brinklow, J., & Dupuis, L. L. (2017). Guideline for the prevention of oral and oropharyngeal mucositis in children receiving treatment for cancer or undergoing hematopoietic stem cell transplantation. *BMJ supportive & palliative care*, 7(1), 7–16. <https://doi.org/10.1136/bmjspcare-2014-000804>

The Health Evidence Review Commission (HERC) Prioritized List of Health Services
<https://www.oregon.gov/oha/HSD/OHP/Pages/Prioritized-List.aspx>

Appendix

Policy Number:

Effective: 4/23/2020

Next review: 5/1/2026

Policy type: Enterprise

Author(s):

Depts.: Health Services; Claims

Applicable regulation(s): OARs 410-120-1200, 410-141-3820, 410-141-3825, 410-151-0001, 410-151-0002, 410-151-0003GN 173 of OHP Prioritized List

Commercial OPs: 4/2025

Government OPs: 4/2025