

# **Dental Clinical Policy**

**Subject:** Local Delivery of Antimicrobial Agents

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 Revised
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## Description

This document addresses the use of local delivery of chemotherapeutic agents/local delivery of antimicrobial agents (LDCA or LDAA) as part of periodontal disease management. LDCA/LDAA may be appropriate when used as adjunctive therapy to treat refractory pockets following initial therapy with periodontal scaling and root planing or in conjunction with periodontal maintenance.

The plan performs review of local delivery of antimicrobial agents due to contractual requirements that necessitate benefits for dental services meet specific contract requirements. For example, plan contract(s) may require the provision of benefits for services that meet generally accepted standards of dental care at the lowest cost that properly addresses the patient's condition. The conclusion that a particular service is medically or dentally necessary and/or appropriate does not constitute an indication and/or warranty that the service requested is a covered benefit payable by the dental plan.

## **Clinical Indications**

## **Appropriateness of Care:**

Evaluation for the use of LDCA/LDAA treatment modalities for refractory disease sites is made following completion of definitive non-surgical and/or surgical periodontal treatment. Refractory disease sites include areas of periodontal pocketing equal to or greater than 5 millimeters (mm) with persistent signs of inflammation, spontaneous bleeding or bleeding upon probing, suppuration and/or increasing loss of clinical attachment. Local delivery of chemotherapeutic agents may also be indicated when isolated refractory sites are diagnosed at periodontal maintenance appointments.

Dental review as it applies to accepted standards of care means dental services that a Dentist, exercising prudent clinical judgment, provides to a patient for the purpose of evaluating, diagnosing or treating a dental injury or disease or its symptoms, and that are: in accordance with the generally accepted standards of dental practice; in terms of type, frequency and extent and is considered effective for the patient's dental injury or disease; and is not primarily performed for the convenience of the patient or Dentist, is not cosmetic and is not more costly than an alternative service.

For dental purposes, "generally accepted standards of dental practice" means:

• standards that are based on credible scientific evidence published in peer-reviewed, dental literature generally recognized by the practicing dental community

- specialty society recommendations/criteria
- the views of recognized dentists practicing in the relevant clinical area
- any other relevant factors from credible sources

#### **Contraindications:**

LDCA modalities are not appropriate for periodontal probing depths of less than 5mm. When a generalized pattern of periodontitis is diagnosed, a more comprehensive intervention may be necessary, surgical therapies should be considered.

Note: Whether a service is covered by the plan, when any service is performed in conjunction with or in preparation for a non-covered or denied service, all related services are also either not covered or denied.

#### Criteria

- 1. Scaling and root planing is highly effective in the treatment of chronic periodontitis and is the standard approach to non-surgical periodontal therapy. In most cases, the majority of diseased sites will respond to non-surgical and will not require LDCA adjunctive therapy.
- 2. After allowing adequate time for healing, local delivery of antimicrobial agents may be performed six weeks to six months post scaling and root planing or periodontal surgery.
- 3. Teeth to be treated must demonstrate an active/refractory site, usually described as a periodontal pocket measuring 5 millimeters or greater with spontaneous bleeding, bleeding on probing, or suppuration and a history of increasing pocket depth with associated attachment loss.
- 4. If there are multiple sites of recurrent and/or residual inflammation after periodontal scaling and root planing has been completed, more extensive periodontal therapeutic modalities, for example, periodontal surgical procedures, may need to be appropriately employed.
- 5. The use of subgingivally placed chemotherapeutic agents may also be indicated as an adjunct to periodontal maintenance therapy when localized recurrent and/or residual sites with inflammation are found.
- 6. The use of the LDCA antimicrobial agents have not been clinically tested for use in the regeneration of alveolar bone. The use of LDCA products in this application is considered by the plan to be experimental and investigational.
- 7. A current (within 12 months), dated, post periodontal maintenance and/or post-periodontal surgery, 6-point periodontal charting is required.
- 8. The use of LDCA in medically compromised patients will be reviewed on a case-by-case basis and will require physician documentation.
- 9. Only those teeth with favorable periodontal outcomes will be considered for benefit.

#### Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

**CDT** including but limited to

- D4381 Localized delivery of antimicrobial agents via a controlled release vehicle into diseased crevicular tissue per tooth
- D4341 periodontal scaling and root planing, four or more teeth per quadrant
- D4342 periodontal scaling and root planing, one to three teeth per quadrant
- D4346 scaling in the presence of generalized moderate or severe gingival inflammation full mouth, after oral exam
- D4910 Periodontal maintenance
- D4999 Unspecified periodontal procedure, by report
- D6081 Scaling and debridement in the presence of inflammation or mucositis of a single implant, including cleaning of the implant surfaces, without flap entry and closure.

ICD-10 CM Diagnoses for Dental Diseases and Conditions: See the current CDT code book for details

## References

- 1. Williams RC, Paquette DW, Offenbacher S, et al. Treatment of periodontitis by local administration of minocycline microspheres. A controlled trial. J Perio 2001;72:1535-1544.
- 2. Hanes PJ and Purvis JP. Local anti-infective therapy: Pharmacological agents. A Systematic review. Annals Periodontol 2003;8:79-98.
- 3. Bonito AJ, Lux L and Lohr KN. Impact of local adjuncts to scaling and root planing in periodontal disease therapy: A systematic review. J Perio 2005;76:1227-1236.
- 4. American Academy of Periodontology. The role of controlled drug delivery for periodontitis (Position paper). J Perio 2000;71:125-140.
- 5. Oringer RJ, Al-Shammari KF, Aldredge WA, et al. Effect of locally delivered minocycline microspheres on markers of bone resorption. J Perio;2002:73:835-842.
- 6. American Academy of Periodontology. Statement of the AAP on Periochip™ chlorhexidine containing resorbable polymer. May 1998.
- 7. Greenstein G. Non-surgical periodontal therapy in 2000: A literature Review. J Amer Dent Assoc 2000;131:1580-1592.
- 8. Minsk L. Evidence-based nonsurgical periodontal therapy. Compendium 2003;24:824-835.
- 9. Tomasi C, Koutouzis T and Wennstrom JL. Locally delivered doxycycline as an adjunct to mechanical debridement at retreatment of periodontal pockets. J Perio 2008;79:431-439.
- 10. American Academy of Periodontology. AAP statement on local delivery of sustained or controlled release antimicrobials as adjunctive therapy in the treatment of periodontitis. (Position paper). J Perio 2006;77:1458.
- 11. American Academy of Periodontology. AAP Statement on Parameters of Care Supplement; Parameter of "Refractoryt" Periodontitis. Volume 71; Number 5
- 12. American Dental Association JADA. <u>Christopher J. Smiley</u>, DDS et. al., <u>Systematic review and meta-analysis on the nonsurgical treatment of chronic periodontitis by means of scaling and root planing with or without adjuncts. JADA July 2015 Vol 146 Issue 7, pgs 508-524</u>
- 13. Bonito, Arthur DDS, Impact of Local Adjuncts to Scaling and Root Planing in Periodontal Disease Therapy: A Systematic Review. Journal of Periodontology. August 2001, Vol 76, No 8, pgs 1227 1236
- 14. CDT 2024 Current Dental Terminology, American Dental Association.

## History

Revision History	Version	Date	Nature of Change	SME
	Initial	3/27/18		Kahn and Clinical Policy Committee
	Revised	11/10/2020	Annual Review	Committee
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	Revised	10/28/2022	Annual Review	Committee
	Revised	10/18/2023	Annual Review	Committee

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