
Delta Dental of Ohio Clinical Criteria for Utilization Management Decisions

Clinical Criteria for Caries Arresting and Preventive Medicaments

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Introduction

This Delta Dental of Ohio clinical criteria document addresses the use of caries arresting and preventive medicaments including silver diamine fluoride (SDF), currently the most commonly used caries arresting agent. The purpose of this document is to provide written clinical criteria to ensure that Delta Dental of Ohio consistently applies sound and objective clinical evidence when determining the medical necessity and clinical appropriateness of the application of caries arresting and preventive medicaments, as well as taking individual patient circumstances and the local delivery system into account.

Caries Arresting Medicaments

Dental caries is the world's most prevalent disease. Untreated carious lesions can cause pain and lead to larger cavities requiring invasive and sometimes extensive treatment which may negatively impact a patient's oral and overall health, nutrition, perception of the dental profession (dental anxiety) and functional ability. Although reports in the United States suggest that water fluoridation and the use of self- and professionally-applied fluoridated products have reduced caries prevalence in children and adolescents, the caries rate has remained relatively unchanged in adults and the elderly, and remains persistently high for at-risk individuals in special needs and other vulnerable populations.

Caries arresting medicaments offer an alternative means in certain circumstances to manage active, non-symptomatic carious lesions in a conservative manner without mechanical removal of sound tooth structure, particularly when physical, developmental or psychosocial barriers to conventional restorative treatment exist, or when access to conventional treatment is limited.

SDF is a topical agent commonly used as a caries arresting medicament. The material is a colorless or blue-tinted liquid with a pH between 10 and 13, and is made up of approximately 25% silver, 5% fluoride and 8% ammonia by weight. Working together, the silver acts as an antimicrobial agent, the fluoride promotes remineralization and the ammonia stabilizes the solution. According to the American Academy of Pediatric Dentistry (AAPD), SDF may be used when clinically appropriate as a minimally invasive non-restorative management technique to arrest and prevent further progression of small carious lesions in both primary and permanent teeth.

When necessary and clinically appropriate, the use of agents such as SDF may not only be efficacious in the treatment of multiple carious lesions at the same appointment, but may be used to stabilize the carious process until such time that conventional therapy is possible. The use of SDF may also be utilized to lessen the need for sedation services for the very young or persons who have difficulty with treatment compliance. Additionally, the U.S. Food and Drug Administration has cleared SDF as a desensitizing agent in cases of dentin hypersensitivity.

The application of caries arresting medicaments may be performed by general dentists, pediatric dentists and other dental specialists in a variety of healthcare facilities.

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Caries Preventive Medicaments

Caries preventive medicament application is a tooth-specific procedure intended for primary prevention or remineralization of teeth with no carious lesions. The procedure does not include the full-mouth application of topical fluorides and may be utilized where a patient has a high risk of developing caries in one or more teeth. Silver nitrate, chlorhexidine–thymol varnish and topical povidone iodine were among the caries preventive medicaments listed by the American Dental Association in a guide for reporting the caries preventive medicament application procedure.

The application of caries preventive medicaments may be performed by general dentists, pediatric dentists and other dental specialists in a variety of healthcare facilities.

Applicable Dental Procedure Codes

The following dental procedure codes defined in the current version of the American Dental Association's Code on Dental Procedures and Nomenclature (the CDT® Code) are applicable to this document and are the appropriate codes to use when documenting the application of caries arresting and preventive medicaments. Inclusion of these codes here is for informational purposes only and does not imply benefit coverage or noncoverage of a procedure by a member's dental plan. A determination that a dental procedure is medically necessary and clinically appropriate does not guarantee that the procedure is a covered benefit of a member's dental plan. To determine if the application of caries arresting and preventive medicaments is a covered benefit of an individual member's dental plan, please refer to the plan documents in effect on the date of service.

CDT® Procedure Code	Procedure Code Nomenclature	Procedure Code Descriptor
D1354	Application of caries arresting medicament – per tooth	Conservative treatment of an active, non-symptomatic carious lesion by topical application of a caries arresting or inhibiting medicament and without mechanical removal of sound tooth structure.
D1355	Caries preventive medicament application – per tooth	For primary prevention or remineralization. Medicaments applied do not include topical fluorides.

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Clinical Criteria¹

Caries Arresting Medicaments

When approval of benefit payment for the application of a caries arresting medicament by a member's dental plan requires a determination by Delta Dental of Ohio that the treatment is medically necessary and clinically appropriate, the patient's dental record must document a generally accepted indication for performing the procedure.

- The use of a caries arresting medicament is generally considered to be indicated in the presence of certain conditions for conservative treatment of active, anterior and posterior non-symptomatic carious lesions in both the primary and adult dentition. Conditions where this treatment may be considered beneficial for a patient include:

¹ Government regulations or the provisions of a member's dental plan that define when a dental procedure may be considered medically necessary and clinically appropriate with respect to benefit coverage may take precedence over these clinical criteria.

- Patients where it would be difficult to provide a conventional restoration (e.g., caries in hard to access areas in furcations or at restoration margins)
- Patients who do not have access to or have difficulty finding conventional dental treatment
- Patients with cognitive, behavioral or compliance issues (e.g., young patients, patients with autism/dementia)
- Patients who present with multiple carious lesions that cannot be treated in a single appointment
- The treatment may also be considered beneficial for the following conditions:
 - Vulnerable tooth surfaces (e.g., tooth roots exposed by periodontal disease)
 - When performed as a conservative secondary treatment for anterior and posterior teeth susceptible to decay
 - When performed as a stand-alone procedure to treat dentinal hypersensitivity (i.e., not performed as part of a conventional restorative procedure)

For patients who do not meet the published qualifying criteria for the application of caries arresting medicaments, Delta Dental of Ohio will consider documentation from relevant clinicians that explains the necessity of covering the use of these agents for the treatment of conditions not included in the criteria.

Depending on the clinical circumstances, the application of caries arresting medicaments under the following conditions may be considered not medically necessary, inadvisable or deficient in clinical quality and may result in disapproval of benefits based on a professional determination that treatment is not medically necessary or not clinically appropriate:

- A patient with an allergy to silver or other components of a caries arresting medicament
- A patient with current mucosal ulcers, irritation or other conditions predisposing them to desquamative gingivitis or mucositis
- Involved teeth have no evidence of dental caries or have non-incipient advanced dental caries
- Involved teeth have evidence of pulpal involvement/pathology
- Involved teeth have been or need to be restored
- Involved teeth are near exfoliation or are planned for extraction
- A patient is pregnant or is breastfeeding
- A patient is unable to cooperate with effective application of the medicament
- Caries involving the anterior teeth if esthetics are a primary concern
- Application as a primary preventative agent (per the AAPD, the current evidence for use as a primary preventative agent is insufficient)
- An alternative treatment is more appropriate for a patient's condition or circumstance based on accepted standards of care

Depending on an individual patient's condition and circumstances, the following additional criteria for the application of caries arresting medicaments may be applied for coverage determinations:

- May be considered appropriate when performed to manage the progression of caries in patients with an elevated caries risk due to disease- or drug-induced xerostomia.

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- May be considered appropriate when performed to conservatively treat active, non-symptomatic carious lesions for patients with a limited life expectancy or a disqualifying medical condition that precludes provision of conventional restorative care.
- The frequency of application should be based upon patient characteristics, ongoing caries risk assessment and the medical and dental health status of the patient.
- Coverage of caries arresting medication application depends on whether an individual's dental benefit program allows, limits or excludes benefits for the procedure. A dental benefit program may allow coverage only for specific caries arresting medicaments and/or circumstances, or may exclude coverage in all circumstances. Delta Dental of Ohio must determine the eligibility of caries arresting medicaments for benefit payment based on the provisions of an individual's specific dental benefit program.
- When dental benefit programs have established program-specific criteria that define when the application of caries arresting medicaments is considered medically necessary and eligible for benefit coverage or that place other limitations on coverage for the medicaments, Delta Dental of Ohio will apply that criteria when there is a need to evaluate the application of caries arresting medicaments for medical necessity.

Caries Preventive Medicaments

When approval of benefit payment for the application of a caries preventive medicament by a member's dental plan requires a determination by Delta Dental of Ohio that the treatment is medically necessary and clinically appropriate, the patient's dental record must document a generally accepted indication for performing the procedure. Depending on an individual patient's condition and circumstances, the following criteria for the application of caries preventive medicaments may be applied for coverage determinations:

- Indicated for patients with an elevated risk of developing caries where primary or permanent teeth with no evidence of a carious lesion are diagnosed as needing primary prevention or remineralization of unrestored tooth surfaces to prevent caries initiation.
- Currently, the evidence for the use of SDF for primary caries prevention is limited. A Policy and Fact Summary published in 2021 by the AAPD stated that due to insufficient evidence of the efficacy of SDF as a primary preventive agent applied to undecayed teeth, the Academy cannot support the use of SDF for primary prevention.
- Coverage of caries preventive medication application depends on whether an individual's dental benefit program allows, limits or excludes benefits for the procedure. A dental benefit program may allow coverage only for specific caries preventive medicaments and/or circumstances, or may exclude coverage in all circumstances. Delta Dental of Ohio must determine the eligibility of caries preventive medicaments for benefit payment based on the provisions of an individual's specific dental benefit program.
- When dental benefit programs have established program-specific criteria that define when the application of caries preventive medicaments is considered medically necessary and eligible for benefit coverage or that place other limitations on coverage for the medicaments, Delta Dental of Ohio will apply that criteria when there is a need to evaluate the application of caries preventive medicaments for medical necessity.

Other Considerations

When the payment of benefits for a dental procedure by a member's dental plan depends on the application of clinical criteria to determine whether the procedure is medically necessary or clinically appropriate, the following additional information will be taken into consideration, if applicable:

- Individual patient characteristics including age, comorbidities, complications, progress of treatment, psychosocial situation and home environment

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- Available services in the local dental delivery system and their ability to meet the member's specific dental care needs when clinical criteria are applied

Required Documentation

The decision to apply caries arresting or preventive medicaments for a patient should be based on a thorough clinical and radiographic examination that facilitates the formulation of an appropriate treatment plan. When the payment of benefits for the application of caries arresting or preventive medicaments by a member's dental plan depends on a review of the procedure's medical necessity and clinical appropriateness, the treating practitioner should submit with the claim the following information as applicable from the patient's dental record. If the practitioner is unable to provide this information, benefit payment may be disapproved.

- Documentation consistent with the patient record that explains the diagnostic rationale for (1) applying a caries arresting medicament for a patient rather than removing caries and restoring the tooth in the conventional manner or (2) applying a caries preventive medicament based on an elevated risk of caries development in one or more specific teeth. This documentation should include any supporting information from the patient's dental and medical histories.
- Recent preoperative diagnostic quality radiographs of the teeth involved clearly showing the caries involved, if applicable.
- Intraoral photographs of the teeth involved when radiographs do not adequately demonstrate the need for the submitted services, if applicable.

When determining coverage based on medical necessity or clinical appropriateness, Delta Dental of Ohio may request other clinical information relevant to a patient's care if needed to make coverage decisions.

Additional Information

The provision of dental advice and clinical treatment of patients is the sole responsibility of treating dentists, and these clinical criteria are not intended to restrict dentists from carrying out that responsibility or recommend treatment to their patients.

Delta Dental of Ohio's clinical criteria are developed and annually updated by a panel of licensed dental general practitioners and specialists serving on Delta Dental of Ohio's Utilization Management (UM) Committee, including the Dental Director and Utilization Management Director. The criteria are developed in alignment with evidence-based clinical recommendations, guidelines and parameters of care of leading nationally recognized dental public health organizations, health research agencies and professional organizations, credible scientific evidence published in peer-reviewed medical and dental literature, the curriculum of accredited dental schools, the regulatory status of relevant dental technologies, the rules and requirements of the Centers for Medicare and Medicaid Services, Delta Dental of Ohio national processing policies and input from practicing dentists. New and revised clinical criteria must be approved by the Dental Director and adopted by the UM Committee prior to release.

Federal or state statutes or regulations, dental plan contract provisions, local or national claim processing policies or other mandated requirements may take precedence over these clinical criteria.

Delta Dental of Ohio reserves the right to modify or replace this document at any time as appropriate to ensure the soundness, accuracy and objectivity of Delta Dental of Ohio's clinical criteria.

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Appendix A

D1354 Interim caries arresting medicament application

- No payment is made in conjunction with a restoration or crown on the same tooth.
- Payment is limited to a fixed amount (flat rate of one unit) per patient, per date of service, regardless of number of units billed or teeth treated.
- Interim caries arresting medicament application is limited to 6 applications per lifetime.

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