Sealants and Preventive Resin Applications (For Ohio Only)

Policy Number: CSDEN333OH.A
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➲ Instructions for Use

Table of Contents Page

Related Dental Policies

- Prefabricated Crowns
- Single Tooth Direct Restorations

Application

This Dental Policy only applies to the state of Ohio. Any requests for services that are stated as unproven or services for which there is a coverage or quantity limit will be evaluated for medical necessity using Ohio Administrative Code 5160-1-01.

Coverage Rationale

Sealants

Sealants are indicated for the following:

- Caries prevention in pit and fissures on permanent molars
- Non-cavitated carious lesions
- Caries prevention in primary molars that are expected to have a reasonable period of retention

Sealants are not indicated for the following:

- In the presence of rampant caries and multiple interproximal lesions
- Extrinsic staining of pits and fissures
- For cavitated carious lesions

Preventive Resin Restoration (PRR)

Preventive Resin restorations may be indicated for the restoration of pit and fissures carious lesions contained to enamel in moderate to high caries risk individuals.

Preventive Resin restorations are not indicated for the following:

- When no caries is evident in pits and fissures
- When a sealant is clinically indicated

- For carious lesions that extend into dentin

Resin Infiltration of Incipient Smooth Surface Lesions

Resin Infiltration of incipient smooth surface lesions is typically used for treating white spot, demineralized enamel resulting from orthodontic treatment, for aesthetic purposes. The code is used to describe a proprietary product (Icon Smooth Surface Caries Infiltration, DMG America Ridgefield park, New Jersey) and is not indicated due to insufficient evidence of efficacy.

Definitions

Composite: A dental restorative material made up of disparate or separate parts (e.g., resin and quartz particles). (ADA)

Resin, Acrylic: Resinous material of the various esters of acrylic acid, used as a denture base material, for trays or for other restorations. (ADA)

Resin Infiltration: Application of a resin material engineered to penetrate and fill the sub-surface pore system of an incipient caries lesion to strengthen, stabilize, and limit the lesion's progression, as well as mask visible white spots. (ADA)
Sealant: A resinous material designed to be applied to the occlusal surfaces of posterior teeth to prevent occlusal caries. (ADA)

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CDT Code	Description
D1351	Sealant – per tooth
D1352	Preventive resin restoration in a moderate to high caries risk patient – permanent tooth
D1353	Sealant repair – per tooth
D2990	Resin infiltration of incipient smooth surface lesions

Description of Services

Dental Sealants are a thin protective coating that fills in the grooves of back teeth and prevents bacteria and food particles from being trapped and causing decay. Sealants can also prevent the progression of incipient carious lesions. Teeth are isolated from saliva contamination, cleaned and prepared with a mild acid solution to aid in adherence. The tooth is then dried and the sealant material is applied and either cured with a light, or self-cures. Preventive resin restorations are fillings that also provide a protective barrier to the deep grooves when there is early decay present that has not extended into the dentin

Clinical Practice Guidelines

In a 2016 joint evidence based clinical practice guideline, the American Dental Association (ADA) and the American Academy of Pediatric Dentistry (AAPD) recommend the use of Sealants compared with nonuse or fluoride varnish in permanent and primary molars. Additionally, sealants could minimize the progression of non cavitated lesions. (Wright et al., 2016).

In a 2018 evidence based clinical practice guideline on non-restorative treatments for carious lesions, the ADA recommended sealants as an effective intervention to arrest or reverse noncavitated carious lesions on occlusal surfaces of primary and

permanent teeth. The expert panel recommends clinicians prioritize the use of Sealants plus 5% NaF varnish (application every 3-6 months) or Sealants alone over 5% NaF varnish alone (Slayton et al., 2018).

Clinical Evidence

Resin Infiltration of Smooth Surface Incipient Lesions

In a 2020 systematic review and meta-analysis, Bakdach et. al reviewed the current evidence on the management of orthodontically induced white spot lesions (OIWSLs). Thirteen publications were included. The interventions reported in the management of OIWSLs were topical fluorides, casein phosphopeptide-amorphous calcium phosphate (CPP-ACP)-containing products, fluoride containing bonding materials, laser therapy, resin infiltration, and micro-abrasion. The methodological quality of the reviews ranged between moderate and critically low. The results showed that casein phosphopeptide-amorphous calcium phosphate (CPP-ACP)-containing products were effective in preventing and reversing these lesions, and there was a lack of reliable evidence for the efficacy of resin infiltration.

Gözetici et al. (2019) conducted a randomized controlled trial to compare the therapeutic effects of the resin infiltration technique, self-assembling peptide (P11-4), and fluoride varnish application on white spot lesions (WSLs) on buccal surfaces based on LF pen measurements and LAA-ICDAS scores. The lesions of 113 patients from a total of 319 patients with at least four visible WSL on buccal surfaces were assessed by LAA-ICDAS and laser fluorescence (LF pen). To be included in the study, participants were required to have at least 4 buccal WLSs, each in different quadrants, with an LF pen score ≥ 8. Twenty-one patients were included in the study based on the laser fluorescence values. The lesions were randomly assigned into 4 groups: IG (Icon), CRG (Curodont Repair), DG (Duraphat), and CG (control) groups. The treatment protocols were applied, but the control group received no treatment except regular brushing. Lesions were scored by LAA-ICDAS after 3 and 6 months and LF pen after 1 week, 3 and 6 months. The results showed a statistically significant decrease in LF pen measurements of the control and the intervention groups after 6 months when compared to baseline. The greatest lesion regression was observed with IG, which differed statistically significantly from CRG, DG and CG, followed by DG which differed statistically significantly from CG. Statistically significant differences were observed in the activity status of the lesions between baseline and 6 months, except for the control group. The authors concluded that in this study, the lesion regression rates shown by mean LF pen values in all groups after six months encourages the management of non-cavitated smooth surface caries lesions with non-operative treatment approaches. Regular brushing and professional tooth cleaning seem to be effective for the management of WSLs on buccal surfaces, and resin infiltration or fluoride varnish might enhance the improvement of these lesions in moderate- to high-caries-risk individuals.

References

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Policy History/Revision Information

Date	Summary of Changes
12/01/2023	New dental policy

Instructions for Use

This Dental Policy provides assistance in interpreting the UnitedHealthcare Community Plan of Ohio dental benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plans may differ. In the event of a conflict, the member specific benefit plan document governs. Before using this policy, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Dental Policy is provided for informational purposes. It does not constitute the practice of medicine or medical advice.

Archived Policy Versions

Effective Date	Guideline Number	Guideline Title
N/A	N/A	N/A