Dental Quality Alliance

PRACTIC E-LEVEL MEASURES FOR QUALITY IMPROVEMENT

RELIABILITY NOT ESTABLISHED. USE ONLY FOR QUALITY IMPROVEMENT

Are you a user? Please send comments to dqa@ada.org
Contents

PURPOSE .............................................................................................................................................................. 2
ACCOUNTABILITY VERSUS QUALITY IMPROVEMENT APPLICATIONS ......................................................... 2
USER GUIDE......................................................................................................................................................... 3
  Cut-off dates: month to days conversion ........................................................................................................ 3
  Billing of Procedure Codes .......................................................................................................................... 3
MEASURE SPECIFICATIONS ............................................................................................................................... 4
  Caries at Recall .............................................................................................................................................. 4
  Caries Risk Assessment Documentation .................................................................................................... 6
  Sealants, 6–9 years ........................................................................................................................................ 7
  Sealants, 10–14 years .................................................................................................................................. 12
  Topical Fluoride Application ..................................................................................................................... 15
  Follow-up After Well-Child Visit .................................................................................................................. 17
PURPOSE

These measure specifications are provided by the DQA to support local efforts to improve quality of care. These specifications are meant for use for monthly reporting within quality improvement (QI) applications within practices. *Reliability assessments of the measure scores have not been conducted, and the measure specifications are not intended for use in accountability applications.*

ACCOUNTABILITY VERSUS QUALITY IMPROVEMENT APPLICATIONS

When measures are used for **internal quality improvement**, an organization identifies its care goals, selects appropriate measures aligned with those care goals, obtains baseline measurement, identifies opportunities for improvement and disparities in care, implements interventions, and re-measures to evaluate the effect of improvement efforts. Measure scores are most often used by individuals **within** the organization.

**Accountability** applications include public reporting (e.g., hospital, health care plan, or provider report cards for consumers), certification, and value-based purchasing, (e.g. linking financial rewards or penalties to performance metrics). These applications typically include comparisons to national benchmarks or peer organizations and include **external** reporting of the measure scores.

The intended use of the measure influences the design and implementation of the measure. **Measures designed specifically for quality improvement purposes should not be used in accountability applications unless they have been rigorously tested for their reliability and validity in those applications.**

For an in-depth discussion on the differences between accountability and quality improvement measures, visit the [National Quality Measures Clearinghouse](https://www.qualitymeasures.ahrq.gov/). Practices are encouraged to adopt measures that relate to their QI goals. Single measures are also not useful in improving quality. As always, a measure score is simply a “number” unless investigated further to determine opportunities for improvement.
Cut-off dates: month to days conversion

To accommodate 28 versus 31 day months, the following standards apply for these measure specifications.

<table>
<thead>
<tr>
<th>Years</th>
<th>Month</th>
<th>Approximate Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td>30 days</td>
<td></td>
</tr>
<tr>
<td>2 months</td>
<td>61 days</td>
<td></td>
</tr>
<tr>
<td>3 months</td>
<td>91 days</td>
<td></td>
</tr>
<tr>
<td>4 months</td>
<td>122 days</td>
<td></td>
</tr>
<tr>
<td>5 months</td>
<td>183 days</td>
<td></td>
</tr>
<tr>
<td>6 months</td>
<td>213 days</td>
<td></td>
</tr>
<tr>
<td>1 year</td>
<td>12 months</td>
<td>395 days</td>
</tr>
<tr>
<td>3 years</td>
<td>36 months</td>
<td>1095 days</td>
</tr>
<tr>
<td>5 years</td>
<td>60 months</td>
<td>1826 days</td>
</tr>
</tbody>
</table>

Billing of Procedure Codes

All procedure codes within the measures included in this document do NOT need to have been billed to an insurance/dental benefit company. Payment for the service is irrelevant to these measures.
**MEASURE SPECIFICATIONS**

**Cavities at Recall**

**Description:** Percentage of patients under age 21 years with carious lesions diagnosed during the measurement month

**Denominator:** Unduplicated number of all children under age 21 years with an oral evaluation during the measurement month

**Numerator:** Unduplicated number of children who were diagnosed with carious lesions

**Rate:** NUM/DEN (Numerator is always a subset of denominator)

**Direction of Improvement:** Lower the better

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*This measure specification assumes that the practice documents ICD codes in the patient’s record, that all diagnosis codes have a date attached in the record, and only those diagnoses entered *during the measurement month* will be included when computing the measure.

Regardless of when the diagnosis of a carious lesion is entered—i.e., at the time of the evaluation (ideal scenario in terms of documentation) or at the time of restoration—this diagnosis must be captured. Similarly even if the cavity was restored in the same month, the patient should be captured in the measure as having disease. The intent is to look for any new or untreated disease in an individual who has been a patient of record in the practice. In the context of a “dashboard” of measures, a population of patients that follows recall and receives optimum preventive services should exhibit fewer cavities at recall.

**All patients in the prior 3 years (Step 2) should be included as “patients of record” for whom we are seeking to lower caries incidence over time.**

**If ICD codes are not used, please map to recorded diagnoses as needed. It is important to note that procedure codes should not be used as a proxy for diagnoses; i.e., all restorations cannot be assumed to be because of disease. Consult your Clinical Champion to improve coding practices if diagnosis codes are not present in the system.**

**CAUTION:** Note that this outcome measure does not include risk adjustment. If examining scores across practices, population demographics and health state must be assessed for appropriate interpretation of the scores. This specification is NOT to be used in accountability applications.

1. **Check if the patient meets the age criterion at the last day of the measurement month:** If patient is <= 20 years, then proceed to next step.

2. **Check if patient had an oral evaluation or assessment in the practice during the last 3 years:** If
   a. Patient received any [CDT Code] = D0120 OR D0145 OR D0150 OR D0180; AND
   b. 0 <= [FIRST DAY OF MEASUREMENT MONTH] - [DATE OF SERVICE] <= 1095 days, then proceed to next step.

   [Note: This step is simply identifying “patients of record” for an initial subset of the population. By doing this we can avoid counting “new patients” in the step below.]

3. **Check if patient received an oral evaluation or assessment during the measurement month:** If patient received any [CDT Code] = D0120 OR D0145 OR D0150 OR D0180, then include in denominator and proceed to next step.

If the patient does not meet the above criteria, then STOP processing. This patient will not be included in the measure denominator.

**YOU NOW HAVE THE DENOMINATOR:** children <21 years with an oral evaluation or assessment during the measurement month
4. Check if patient has an ICD code in the record indicative of Carious Lesions documented during the measurement month: If patient received any [ICD-10 Code] below, then include in numerator:

   K02.52 pit & fissure dentin caries OR
   K02.53 pit & fissure pulp caries OR
   K02.62 smooth surface dentin caries OR
   K02.63 smooth surface pulp caries OR
   K02.9 unspecified caries

   **NOTE:** If practice uses propriety coding or other versions of ICD, please map to these codes and compute measure.

If the patient does not meet the above criterion, then STOP processing. This patient will be included in the measure denominator, but not in the numerator.

YOU NOW HAVE THE **NUMERATOR**: subset of children in the denominator diagnosed with carious lesions in the measurement month

5. **Report**
   a. Unduplicated count of patients in numerator
   b. Unduplicated count of patients in denominator
   c. Measure score (percentage): NUM/DEN
Caries Risk Assessment Documentation

Description: Percentage of patients under age 21 years with caries risk documented during the measurement month

Denominator: Unduplicated number of all children under age 21 years with an oral evaluation or assessment during the measurement month

Numerator: Unduplicated number of children with caries risk documented

Rate: NUM/DEN (Numerator is always a subset of denominator)

Direction of Improvement: Higher the better

This measure assumes that risk assessment will be documented at every comprehensive or periodic evaluation. This measure will also capture risk assessment performed as part of a limited assessment for further referral (D0191)—e.g., risk assessment that may be performed as part of a school based program.

1. Check if the patient meets the age criterion at the last day of the measurement month: If patient is \( \leq 20 \) years, then proceed to next step.

2. Check if patient received an oral evaluation or assessment during the measurement month: If patient received any [CDT Code] = D0191 OR D0120 OR D0145 OR D0150 OR D0180, then include in denominator and proceed to next step.

If the patient does not meet the above criteria, then STOP processing. This patient will not be included in the measure denominator.

YOU NOW HAVE THE DENOMINATOR: children <21 years with an oral evaluation or assessment during the measurement month

3. Check if patient has caries risk documented during the measurement month: If patient has record of any [CDT Code] = D0601 OR D0602 OR D0603, then include in numerator.

If the patient does not meet the above criterion, then STOP processing. This patient will be included in the measure denominator, but not in the numerator.

YOU NOW HAVE THE NUMERATOR: subset of children in the denominator with caries risk documented during the measurement month

4. Report:
   a. Unduplicated count of patients in numerator
   b. Unduplicated count of patients in denominator
   c. Measure score (percentage): NUM/DEN
Sealants, 6–9 years

**Description:** Percentage of children, age 6–9 years, at moderate to high risk for caries who received at least one sealant on a permanent first molar within six months of an oral evaluation or assessment.

**Denominator:** Unduplicated number of children 6-9 years who had an oral assessment or evaluation visit and are at moderate to high risk for caries.

**Numerator:** Unduplicated number of children 6–9 years who received a sealant on a permanent first molar tooth within six months of an oral evaluation or assessment.

**Denominator Exception:** Children 6–9 years who do not have at least one sealable permanent first molar.

**Rate:** NUM/DEN after exceptions (Numerator is always a subset of denominator).

**Direction of Improvement:** Higher the better.

*To improve feasibility, this measure is designed to measure sealants on at least one sealable molar. However, it is important that sealant placement be prioritized and avoid recalling a patient to perform “quadrant treatment” especially in cases where practices are traditionally paid based on encounter fees. Clinical champions should encourage appropriate high quality care.*

1. Check if the patient meets the age criteria **at the last day of the measurement month:** If patient is >= 6 years AND <= 9 years, then proceed to next step.

2. Check if patient had an oral evaluation or assessment **in the practice in the sixth month prior to the measurement month** (“sealant index month”):
   a. If patient received any [CDT Code] = D0191 OR D0120 OR D0150 OR D0180; AND
   b. 152 days < [FIRST DAY OF MEASUREMENT MONTH] - [EXAM DATE OF SERVICE] <= 183 days, then proceed to next step.

3. Check if patient is documented as at “elevated risk” **prior to the measurement month:** If patient has any [CDT Code] = D0602 OR D0603 prior to the measurement month, then proceed to the next step. [Note: If patient has more than one risk status documentation, use the most recent risk documentation prior to measurement month.]

   If the patient does not meet the above criteria, then STOP processing. This patient will not be included in the measure denominator before exceptions.

4. Check if patient has a sealant placed **within 6 months of exam date**:
   a. If [CDT CODE] = D1351; AND
   b. 0 < [SEALANT DATE OF SERVICE] - [EXAM DATE OF SERVICE] <= 183 DAYS then proceed to next step.

5. Check if sealant was placed on permanent first molar. If [TOOTH NUMBER] = 3 OR 14 OR 19 OR 30 using the Universal Numbering System, then include in numerator.

   If the patient does not meet the above criteria, then STOP processing. This patient will be included in the measure denominator before exceptions, but not in the numerator.

   Note: The sealant code in the step above must have been completed. The practice database may have fields to indicate “Treatment Planned” or “Diagnosed codes”—these should not be included. The sealant should have been actually provided.
YOU NOW HAVE THE **NUMERATOR:** the subset of children in the denominator who received a sealant on a permanent first molar within six months of an oral evaluation or assessment

6. Check if patient qualifies for an exception from the denominator because none of the permanent first molars is sealable:
   a. On permanent first molar maxillary left; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   b. On permanent first molar maxillary right; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   c. On permanent first molar mandibular left; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   d. On permanent first molar mandibular right; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month

**Note:** Step 6 only needs to be conducted for those patients who were in the denominator before exceptions but were not included in the numerator in Step 5 above (i.e., those patients in the denominator who did not receive a sealant).

**ALTERNATE PROCESSING TIP FOR IDENTIFYING EXCEPTIONS:** If your database does not allow filtering by tooth number, consider filtering by diagnosis (unerupted and active caries) and procedure (restorations and sealants) and then confirm tooth numbers for exception rule.

If the patient had an exception noted for ALL FOUR permanent first molars, then the subject *does not* have at least one sealable permanent first molar; remove this patient from the denominator; STOP processing.

YOU NOW HAVE THE **DENOMINATOR AFTER EXCEPTIONS:** children 6–9 years who had an oral assessment or evaluation visit and are at moderate to high risk for caries with at least one sealable permanent first molar

**ALTERNATE PROCESSING TIP FOR ORDER IN WHICH DENOMINATOR, NUMERATOR, AND EXCEPTIONS ARE IDENTIFIED:** Process Step 6 (checking for at least one sealable molar) after Step 3, as part of the Denominator, and then consider all patients in the Denominator for Steps 4 and 5 to create the Numerator. This order of processing should not impact results.

**SUCCESS TIP:** Part of getting a precise measure using exceptions depends on whether the software allows the clinician to record the condition of all teeth at the time of examination AND whether the clinician actually records all these data (e.g., unerupted teeth on the odontogram). Our experience has been that structured data to capture all exceptions are often not available at most practices either because of software barriers (i.e., some practices only have scheduling software and do not maintain electronic records) or lack of complete clinical documentation. Given this, an alternate solution would be for practices to institute a “smart code” in the workflows. This code should be available to the clinical team to designate a patient as “Included” (when the patient has at least one sealable molar) or “Excluded” (when the patient does not have any sealable molars) at the time of each examination (e.g., using a pop-up box or radio buttons on the chart). This may be the most practical method of applying exceptions to the measure for practices that do not have complete charting.

7. **Report:**
   a. Unduplicated count of patients in numerator
b. Unduplicated count of patients in denominator before exceptions  
c. Unduplicated count of patients qualifying for exceptions  
d. Unduplicated count of patients in denominator after exceptions  
e. Measure score (percentage): NUM/DEN after exceptions

**NOTE:** This measure specification is similar to but not the same as the HRSA UDS Sealant measure/ DQA eMeasure. The UDS/ DQA eMeasure is specified for retrospective annual reporting on patients examined in a practice and determined to be at elevated risk. The above measure specification will generate monthly reports for QI purposes and looks for sealants specifically on patients seen six months earlier for an exam visit.

**Code Table for Denominator Exceptions** [Check with Clinical Champion on whether local codes are used instead of standard ICD codes and map accordingly. The dental record software may itself assign alternate codes that support capture of structured data through the odontogram. Again, map as needed.]

<table>
<thead>
<tr>
<th>Diagnosis of Unerupted/Missing Teeth (ICD-10 Codes)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K00.6 Disturbances in tooth eruption</td>
<td></td>
</tr>
<tr>
<td>K00.0 Anodontia</td>
<td></td>
</tr>
<tr>
<td>K08.1 Complete loss of teeth</td>
<td></td>
</tr>
<tr>
<td>K08.4 Partial loss of teeth</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnosis of Active Caries (ICD-10 Codes)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K00.3 Mottled teeth</td>
<td></td>
</tr>
<tr>
<td>K02 Dental caries</td>
<td></td>
</tr>
<tr>
<td>K02.3 Arrested dental caries</td>
<td></td>
</tr>
<tr>
<td>K02.9 Dental caries, unspecified</td>
<td></td>
</tr>
<tr>
<td>K02.52 Dental caries on pit and fissure surface penetrating into dentin</td>
<td></td>
</tr>
<tr>
<td>K02.53 Dental caries on pit and fissure surface penetrating into pulp</td>
<td></td>
</tr>
<tr>
<td>K02.63 Dental caries on smooth surface penetrating into pulp</td>
<td></td>
</tr>
<tr>
<td>K04.0 Pulpitis</td>
<td></td>
</tr>
<tr>
<td>K04.6 Periapical abscess with sinus</td>
<td></td>
</tr>
<tr>
<td>K04.7 Periapical abscess without sinus</td>
<td></td>
</tr>
<tr>
<td>K08.13 Complete loss of teeth due to caries</td>
<td></td>
</tr>
<tr>
<td>K08.43 Partial loss of teeth due to caries</td>
<td></td>
</tr>
<tr>
<td>K08.131 Complete loss of teeth due to caries, class I</td>
<td></td>
</tr>
<tr>
<td>K08.132 Complete loss of teeth due to caries, class II</td>
<td></td>
</tr>
<tr>
<td>K08.133 Complete loss of teeth due to caries, class III</td>
<td></td>
</tr>
<tr>
<td>K08.134 Complete loss of teeth due to caries, class IV</td>
<td></td>
</tr>
<tr>
<td>K08.139 Complete loss of teeth due to caries, unspecified class</td>
<td></td>
</tr>
<tr>
<td>K08.431 Partial loss of teeth due to caries, class I</td>
<td></td>
</tr>
<tr>
<td>K08.432 Partial loss of teeth due to caries, class II</td>
<td></td>
</tr>
<tr>
<td>K08.433 Partial loss of teeth due to caries, class III</td>
<td></td>
</tr>
<tr>
<td>K08.434 Partial loss of teeth due to caries, class IV</td>
<td></td>
</tr>
<tr>
<td>K08.439 Partial loss of teeth due to caries, unspecified class</td>
<td></td>
</tr>
</tbody>
</table>

**Procedure performed: sealant (CDT code)**
- D1351 sealant - per tooth

**Procedure performed: restoration (CDT codes)**
- D1352 preventive resin restoration in a moderate to high caries risk patient - permanent tooth
- D2140 amalgam - one surface, primary or permanent
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2150</td>
<td>amalgam - two surfaces, primary or permanent</td>
</tr>
<tr>
<td>D2160</td>
<td>amalgam - three surfaces, primary or permanent</td>
</tr>
<tr>
<td>D2161</td>
<td>amalgam - four or more surfaces, primary or permanent</td>
</tr>
<tr>
<td>D2335</td>
<td>resin-based composite - four or more surfaces or involving incisal angle (anterior)</td>
</tr>
<tr>
<td>D2391</td>
<td>resin-based composite - one surface, posterior</td>
</tr>
<tr>
<td>D2392</td>
<td>resin-based composite - two surfaces, posterior</td>
</tr>
<tr>
<td>D2393</td>
<td>resin-based composite - three surfaces, posterior</td>
</tr>
<tr>
<td>D2394</td>
<td>resin-based composite - four or more surfaces, posterior</td>
</tr>
<tr>
<td>D2410</td>
<td>gold foil - one surface</td>
</tr>
<tr>
<td>D2420</td>
<td>gold foil - two surfaces</td>
</tr>
<tr>
<td>D2430</td>
<td>gold foil - three surfaces</td>
</tr>
<tr>
<td>D2510</td>
<td>inlay - metallic - one surface</td>
</tr>
<tr>
<td>D2520</td>
<td>inlay - metallic - two surfaces</td>
</tr>
<tr>
<td>D2530</td>
<td>inlay - metallic - three or more surfaces</td>
</tr>
<tr>
<td>D2542</td>
<td>onlay - metallic - two surfaces</td>
</tr>
<tr>
<td>D2543</td>
<td>onlay - metallic - three surfaces</td>
</tr>
<tr>
<td>D2544</td>
<td>onlay - metallic - four or more surfaces</td>
</tr>
<tr>
<td>D2610</td>
<td>inlay - porcelain/ceramic - one surface</td>
</tr>
<tr>
<td>D2620</td>
<td>inlay - porcelain/ceramic - two surfaces</td>
</tr>
<tr>
<td>D2630</td>
<td>inlay - porcelain/ceramic - three or more surfaces</td>
</tr>
<tr>
<td>D2642</td>
<td>onlay - porcelain/ceramic - two surfaces</td>
</tr>
<tr>
<td>D2643</td>
<td>onlay - porcelain/ceramic - three surfaces</td>
</tr>
<tr>
<td>D2644</td>
<td>onlay - porcelain/ceramic - four or more surfaces</td>
</tr>
<tr>
<td>D2650</td>
<td>inlay - resin-based composite - one surface</td>
</tr>
<tr>
<td>D2651</td>
<td>inlay - resin-based composite - two surfaces</td>
</tr>
<tr>
<td>D2652</td>
<td>inlay - resin-based composite - three or more surfaces</td>
</tr>
<tr>
<td>D2662</td>
<td>onlay - resin-based composite - two surfaces</td>
</tr>
<tr>
<td>D2663</td>
<td>onlay - resin-based composite - three surfaces</td>
</tr>
<tr>
<td>D2664</td>
<td>onlay - resin-based composite - four or more surfaces</td>
</tr>
<tr>
<td>D2710</td>
<td>crown - resin-based composite (indirect)</td>
</tr>
<tr>
<td>D2712</td>
<td>crown - 3/4 resin-based composite (indirect)</td>
</tr>
<tr>
<td>D2720</td>
<td>crown - resin with high noble metal</td>
</tr>
<tr>
<td>D2721</td>
<td>crown - resin with predominantly base metal</td>
</tr>
<tr>
<td>D2722</td>
<td>crown - resin with noble metal</td>
</tr>
<tr>
<td>D2740</td>
<td>crown - porcelain/ceramic substrate</td>
</tr>
<tr>
<td>D2750</td>
<td>crown - porcelain fused to high noble metal</td>
</tr>
<tr>
<td>D2751</td>
<td>crown - porcelain fused to predominantly base metal</td>
</tr>
<tr>
<td>D2752</td>
<td>crown - porcelain fused to noble metal</td>
</tr>
<tr>
<td>D2780</td>
<td>crown - 3/4 cast high noble metal</td>
</tr>
<tr>
<td>D2781</td>
<td>crown - 3/4 cast predominantly base metal</td>
</tr>
<tr>
<td>D2782</td>
<td>crown - 3/4 cast noble metal</td>
</tr>
<tr>
<td>D2783</td>
<td>crown - 3/4 porcelain/ceramic</td>
</tr>
<tr>
<td>D2790</td>
<td>crown - full cast high noble metal</td>
</tr>
<tr>
<td>D2791</td>
<td>crown - full cast predominantly base metal</td>
</tr>
<tr>
<td>D2792</td>
<td>crown - full cast noble metal</td>
</tr>
<tr>
<td>D2794</td>
<td>crown - titanium</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>D2799</td>
<td>provisional crown - further treatment or completion of diagnosis necessary prior to final impression</td>
</tr>
<tr>
<td>D2910</td>
<td>recement inlay, onlay, or partial coverage restoration</td>
</tr>
<tr>
<td>D2931</td>
<td>prefabricated stainless steel crown - permanent tooth</td>
</tr>
<tr>
<td>D2932</td>
<td>prefabricated resin crown</td>
</tr>
<tr>
<td>D2933</td>
<td>prefabricated stainless steel crown with resin window</td>
</tr>
<tr>
<td>D2940</td>
<td>protective restoration</td>
</tr>
<tr>
<td>D2970</td>
<td>temporary crown (fractured tooth)</td>
</tr>
<tr>
<td>D2980</td>
<td>crown repair necessitated by restorative material failure</td>
</tr>
<tr>
<td>D6750</td>
<td>crown - porcelain fused to high noble metal</td>
</tr>
<tr>
<td>D6752</td>
<td>crown - porcelain fused to noble metal</td>
</tr>
</tbody>
</table>
Sealants, 10–14 years

**Description:** Percentage of children, age 10–14 years, at moderate to high risk for caries who received at least one sealant on a permanent second molar within six months of an oral evaluation or assessment

**Denominator:** Unduplicated number of children 10–14 years who had an oral assessment or evaluation visit and are at moderate to high risk for caries

**Numerator:** Unduplicated number of children 10–14 years who received a sealant on a permanent second molar tooth within six months of an oral evaluation or assessment

**Denominator Exception:** Children 10–14 years who do not have at least one sealable permanent second molar

**Rate:** NUM/DEN after exceptions (Numerator is always a subset of denominator)

**Direction of Improvement:** Higher the better

*To improve feasibility, this measure is designed to measure sealants on at least one sealable molar. However, it is important that sealant placement be prioritized and avoid recalling patient to perform “quadrant treatment” especially in cases where practices are traditionally paid based on encounter fees. Clinical champions should encourage appropriate high quality care.*

1. Check if the patient meets the age criteria **at the last day of the measurement month**: If patient is >= 10 years AND <= 14 years, then proceed to next step.

2. Check if patient had an oral evaluation or assessment **in the practice in the sixth month prior to the measurement month ("sealant index month")**:
   a. If patient received any [CDT Code] = D0191 OR D0120 OR D0150 OR D0180; AND
   b. 152 days < [FIRST DAY OF MEASUREMENT MONTH] – [EXAM DATE OF SERVICE] <= 183 days, then proceed to next step.

3. Check if patient was documented as at “elevated risk” **prior to the measurement month**: If patient has any [CDT Code] = D0602 OR D0603 prior to the measurement month, then proceed to the next step.
   [Note: If patient has more than one risk status documentation, use the most recent risk documentation prior to measurement month.]

   If the patient does not meet the above criteria, then STOP processing. This patient will not be included in the measure denominator before exceptions.

YOU NOW HAVE THE **DENOMINATOR BEFORE EXCEPTIONS**: children 10–14 years who had an oral assessment or evaluation visit and are at moderate to high risk for caries

4. Check if patient has a sealant placed **within 6 months of exam date**:
   a. If [CDT CODE] = D1351; AND
   b. 0 < [SEALANT DATE OF SERVICE] – [EXAM DATE OF SERVICE] <= 183 DAYS then proceed to next step.

5. Check if sealant was placed on permanent second molar. If [TOOTH NUMBER] = 2 OR 15 OR 18 OR 31 using the Universal Numbering System, then include in **numerator**.

   If the patient does not meet the above criteria, then STOP processing. This patient will be included in the measure denominator, but not in the numerator.

   [Note: The sealant code in the step above must have been completed. The practice database may have fields to indicate “Treatment Planned” or “Diagnosed codes”— these should not be included. The sealant should have been actually provided.]
YOU NOW HAVE THE NUMERATOR: the subset of children in the denominator before exceptions who received a sealant on a permanent second molar within six months of an oral evaluation or assessment.

6. Check if patient qualifies for an exception from the denominator because none of the permanent second molars is sealable:
   a. On permanent second molar maxillary left; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   b. On permanent second molar maxillary right; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   c. On permanent second molar mandibular left; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month
   d. On permanent second molar mandibular right; Check if:
      i. Patient has a diagnosis of unerupted teeth in the sealant index month; OR
      ii. Patient has had restorations or sealants performed prior to measurement month; OR
      iii. Patient has active diagnosis of caries in the sealant index month

**Note:** Step 6 only needs to be conducted for those patients who were in the denominator before exceptions but were not included in the numerator in Step 5 above (i.e., those patients in the denominator who did not receive a sealant).

**ALTERNATE PROCESSING TIP FOR IDENTIFYING EXCEPTIONS:** If your database does not allow filtering by tooth number, consider filtering by diagnosis (unerupted and active caries) and procedure (restorations and sealants) and then confirm tooth numbers for exception rule.

If the patient had an exception noted for ALL FOUR permanent second molars, then the subject *does not* have at least one sealable permanent second molar; remove this patient from the denominator; STOP processing.

YOU NOW HAVE THE DENOMINATOR AFTER EXCEPTIONS: children 10–14 years who had an oral assessment or evaluation visit and are at moderate to high risk for caries with at least one sealable permanent second molar.

**ALTERNATE PROCESSING TIP FOR ORDER IN WHICH DENOMINATOR, NUMERATOR, AND EXCEPTIONS ARE IDENTIFIED:** Process Step 6 (checking for at least one sealable molar) after Step 3, as part of the Denominator, and then consider all patients in the Denominator for Steps 4 and 5 to create the Numerator. This order of processing should not impact results.

**SUCCESS TIP:** Part of getting a precise measure using exceptions depends on whether the software allows the clinician to record the condition of all teeth at the time of examination AND whether the clinician actually records all these data (e.g., unerupted teeth on the odontogram). Our experience has been that structured data to capture all exceptions are often not available at most practices either because of software barriers (i.e., some practices only have scheduling software and do not maintain electronic records) or lack of complete clinical documentation. Given this, an alternate solution would be for practices to institute a “smart code” in the workflows. **This code should be available to the clinical team to designate a patient as “Included” (when the patient has at least one sealable molar) or “Excluded” (when the patient does not have any sealable molars) at the time of each examination** (e.g., using a pop-up box or radio buttons on the chart). This may be...
the most practical method of applying exceptions to the measure for practices that do not have complete charting.

7. **Report**
   a. Unduplicated count of patients in numerator
   b. Unduplicated count of patients in denominator before exceptions
   c. Unduplicated count of patients qualifying for exceptions
   d. Unduplicated count of patients in the denominator after exceptions
   e. Measure score (percentage): NUM/DEN after exceptions

**USE SAME CODE SETS AS PREVIOUS SEALANT MEASURE**
Topical Fluoride Application

**Description:** Percentage of patients aged 1–21 years who received fluoride varnish during the measurement month

**Denominator:** Unduplicated number of all children aged 1–21 years who received an oral assessment or evaluation during the measurement month and have not received two fluoride varnish applications prior to the measurement month

**Numerator:** Unduplicated number of all children who received fluoride varnish

**Rate:** NUM/DEN (Numerator is always a subset of denominator)

**Direction of Improvement:** Higher the better

*Note that there is a dose response relationship between fluoride varnish application and caries reduction. Evidence-based guidelines recommend 4 fluoride varnish application for those at high risk for caries. However, prior DQA testing data indicates that a large percentage of children often do not receive even 2 fluoride varnish applications. Thus, programs are currently focusing on attaining at least two applications for their at-risk populations.*

**This measure specification is meant for dental practices trying to improve fluoride varnish scores to support Medicaid program/plan efforts to improve program performance. The standard DQA program level measure requires “at least 2 fluoride varnish applications” for children at elevated risk for caries and includes 1–21 year olds as “children.”**

1. Check if the patient meets the age criteria at **the last day of the measurement month**: If patient is \( \geq 1 \) AND \( \leq 20 \) years, then proceed to next step.

2. Check if patient had an oral evaluation or assessment **during the measurement month**: If patient received \([\text{CDT Code}] = D0191 \text{ OR } D0120 \text{ OR } D0145 \text{ OR } D0150 \text{ OR } D0180\).

3. Check if patient was documented as at “elevated risk” **during OR prior to the measurement month**: If patient has any \([\text{CDT Code}] = D0602 \text{ OR } D0603\) during OR prior to the measurement month, then proceed to the next step. [Note: If patient has more than one risk status documentation, use the **most recent risk documentation in the measurement month or prior to measurement month**.]

4. Check if patient has *not* received topical fluoride varnish at least 2 times during the year **prior to the first day of the measurement month**:
   a. Application 1:
      i. \([\text{CDT Code}] = D1206 \text{ OR } [\text{CPT Code}] = 99188\); AND
      ii. \([\text{Jan 1 of measurement year} \leq [\text{DATE OF SERVICE 1}] < [\text{FIRST DATE OF MEASUREMENT MONTH}]\)

   AND

   b. Application 2:
      i. \([\text{CDT Code}] = D1206 \text{ OR } [\text{CPT Code}] = 99188\); AND
      ii. \([\text{Jan 1 of measurement year} \leq [\text{DATE OF SERVICE 2}] < [\text{FIRST DATE OF MEASUREMENT MONTH}]\)

   INCLUDE IN DENOMINATOR those patients who have **NOT** had two fluoride varnish applications satisfying the criteria in a and b above.

   Note: Date of Service 1 and Date of Service 2 should be unique dates of service. No more than one fluoride varnish application can be counted for the same patient on the same date of service.

YOU NOW HAVE THE **DENOMINATOR:** children aged 1-21 years at elevated risk who have not received topical fluoride varnish at least 2 times prior to the measurement month during the measurement year

5. Check if patient has topical fluoride varnish placed **during the measurement month**: If
a. [CDT Code] = D1206

If the patient does not meet the above criterion, then STOP processing. This patient will be included in the measure denominator, but not in the numerator.

Note: The topical fluoride code in Step 5 above must have been completed. The practice database may have fields to indicate “Treatment Planned” or “Diagnosed codes”—these should not be included. The fluoride application should have been actually provided.

YOU NOW HAVE THE **NUMERATOR**: subset of children in the denominator who received fluoride vanish in the measurement month

6. **Report**
   a. Unduplicated count of patients in numerator
   b. Unduplicated count of patients in denominator
   c. Measure score (percentage): NUM/DEN
Follow-up After Well-Child Visit

**Description:** Percentage of patients aged 1–5 years who received a follow-up oral evaluation within 3 months of a well-child visit

**Denominator:** Unduplicated number of all children aged 1–5 years without a dental home who received a well-child visit in the third month prior to the measurement month

**Numerator:** Unduplicated number of all children who had a follow-up oral evaluation within 3 months

**Rate:** NUM/DEN (Numerator is always a subset of denominator)

**Direction of Improvement:** Higher the better

*Use records from medical and dental clinics.*

**This measure assumes that the practice is a CHC/FQHC/ACO/Health system and has a co-located dental clinic or a referral network and is looking at a QI goal of increasing medical-dental collaboration and establishing a dental home by age 1.**

***In areas with dentist provider shortages, the clinic may need to target follow-up to those children at elevated risk for dental caries. Consult clinical champion if you need to limit to elevated-risk children to ensure that data on risk assessment are captured on the medical side. Use the data to limit the denominator population to elevated risk children. Alter measure description for internal QI reporting. If used within a collaborative, ensure all collaborative participants are computing in a similar manner.***

****This measure assumes that clinics have the ability to determine if the patient already has a dental home: check for feasibility in this regard before proceeding. Measure will be feasible with EHRs where record follows patients.****

1. Check if the patient meets the age criteria **at the last day of the measurement month**: If patient is >= 1 year AND <= 5 years, then proceed to next step.

2. Check if patient had a medical well-child visit **in the practice in the third month prior to the measurement month** (“well-child visit date”):
   a. If patient received
      i. [CPT Code] = 99382 OR 99383 OR 99392 OR 99393; OR
      ii. [ICD-10 Code] = Z00.129
      AND
   b. 61 days < [FIRST DAY OF MEASUREMENT MONTH] – [WELL CHILD VISIT DATE OF SERVICE] <= 91 days, then proceed to next step.

   If both criteria are met, then proceed to next step. If not, this patient is not included in denominator, STOP processing.

3. Check if the patient has a dental home: [consult with clinical champion and medical team to identify how these data might be stored in the system; e.g., medical/dental history form]

   If no prior dental home, then include patient in denominator and proceed to next step. If patient has a dental home, then this patient is not included in denominator; STOP processing.

   **YOU NOW HAVE THE DENOMINATOR:** children 1–5 years who received a well-child visit in the third month prior to the measurement month and do not have a dental home

4. Check if patient has an oral evaluation **within 3 months of the well-child visit**:
   a. If patient received oral evaluation [CDT Code] = D0120 OR D0145 OR D0150 OR D0180; AND
b. \( 0 < \text{[ORAL EVALUATION DATE OF SERVICE]} - \text{[WELL-CHILD VISIT DATE OF SERVICE]} \leq 91 \text{ days} \) then include in the numerator.

If the patient does not meet the above criteria, then STOP processing. This patient will be included in the measure denominator, but not in the numerator.

YOU NOW HAVE THE NUMERATOR: subset of children in the denominator who received an oral evaluation within three months of a well-child visit.

5. **Report**:
   a. Unduplicated count of patients in numerator
   b. Unduplicated count of patients in denominator
   c. Measure score (percentage): \( \frac{\text{NUM}}{\text{DEN}} \)