Effective January 1, 2023

Dental Quality Alliance

User Guide for Adult Measures Calculated Using Administrative Claims Data

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1. Background

A. Measure Development

The Dental Quality Alliance (DQA) was formed in 2010 as a multi-stakeholder group to advance oral healthcare performance measurement. The DQA develops aligned, standardized, and validated measures that can be applied in the public and private sectors. DQA Measures include oral healthcare access, process, and outcomes quality measures and related healthcare delivery measures (e.g., utilization and cost of care). Measures developed by the DQA undergo rigorous validation.[1]

DQA Measures can be used to:

1. uniformly assess evidence-based quality of care across reporting entities;
2. inform performance improvement projects longitudinally and monitor improvements in care;
3. identify variations in care;
4. develop benchmarks for comparison; and
5. uniformly assess utilization of care.

DQA Measures include measures calculated using administrative claims data that are designed for use by public programs (e.g., Medicaid and CHIP), state Marketplaces, dental benefits administrators (DBAs), and managed care organizations (MCOs). DQA Measures have been formally adopted by the Centers for Medicare and Medicaid Services (CMS), the Health Resources and Services Administration (HRSA), state Medicaid programs, and state Marketplaces.[2-4] This User Guide was developed to assist in implementing the administrative claims-based DQA Measures for adults.

B. DQA Measures Summary

Table 1 summarizes all validated DQA administrative claims-based measures for **adults** as of September 1st, 2022. Detailed specifications are available on the DQA website.[5] Information on measures currently in development also is available on the DQA website.[6] DQA measures are reviewed on an annual basis with new versions effective January 1st of each year. This User Guide is updated on the same schedule.

Adult Measures

The DQA approved three adult measures focused on prevention and disease management in December 2016. Three additional adult measures to assess ambulatory care sensitive dental-related emergency department visits and oral evaluation for individuals with diabetes were approved by the DQA in June 2019. These measures were developed for implementation with administrative enrollment and claims data for plan and program level reporting. This User Guide focuses on these six measures.

Pediatric Measures

The DQA's initial measure set ("Starter Set"), Dental Caries in Children: Prevention and Disease Management, was approved by the DQA and published in July 2013. These measures were developed for implementation with administrative enrollment and claims data for plan and program level reporting. Two measures of ambulatory care sensitive emergency department visits among children for reasons related to dental caries and subsequent follow-up with a dental provider were developed in 2014 for implementation with administrative enrollment and claims data for program level reporting. DQA measures have been endorsed by the National Quality Forum.

Two measure concepts from the Starter Set that were developed for implementation with electronic health records (EHRs) were approved by the DQA and published in the United States Health Information Knowledgebase in October 2014.[7,8]

The pediatric measures and companion User Guide are available on the DQA website.

Table 1. DQA Administrative Claims-Based Adult Measures Summary†

Evaluating Utilization

Measure Abbreviation	Measure Name	Description	NQF #	Data Source	Measure Domains	Level(s) of Measurement
PEV-A-A	Periodontal Evaluation in Adults with Periodontitis	Percentage of enrolled adults aged 30 years and older with history of periodontitis who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year	N/A	Administrative enrollment and claims	Related Health Care Delivery: Use of Services	Program, Plan

Evaluating Quality of Care

Measure Abbreviation	Measure Name	Description	NQF #	Data Source	Measure Domains	Level of Measurement
POC-A-A	Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis	Percentage of enrolled adults aged 30 years and older with a history of periodontitis who received an oral prophylaxis OR scaling/root planing OR periodontal maintenance visit at least 2 times within the reporting year	N/A	Administrative enrollment and claims	Process	Program, Plan
TFL-A-A	Topical Fluoride for Adults at Elevated Caries Risk	Percentage of enrolled adults aged 18 years and older who are at "elevated" risk (i.e., "moderate" or "high") who received at least 2 topical fluoride applications within the reporting year	N/A	Administrative enrollment and claims	Process	Program, Plan
DOE-A-A	Adults with Diabetes – Oral Evaluation	Percentage of enrolled adults with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year	N/A	Administrative enrollment and claims	Process	Program, Plan
EDV-A-A	Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults	Number of emergency department (ED) visits for ambulatory care sensitive dental conditions per 100,000 member months for enrolled adults	N/A	Administrative enrollment and claims	Access	Program, Plan

EDF-A-A	Follow-up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults	The percentage of ambulatory care sensitive dental condition emergency department visits among adults aged 18 years and older in the reporting period for which the member visited a dentist within (a) 7 days and (b) 30 days of the ED visit	N/A	Administrative enrollment and claims	Process	Program, Plan

†The detailed specifications can be found on the DQA website at: https://www.ada.org/resources/research/dental-quality-alliance/dqa-dental-quality-measures

C. Implementation Considerations

Clearly specified, feasible, reliable, and valid measures are required to implement standardized performance measurement that fosters quality improvement and improved health outcomes. When standardized measures are implemented across reporting entities, benchmarks can be established, comparisons can be made, and improvement opportunities can be identified. DQA Measures are standardized with detailed specifications and have been validated for feasibility, reliability, usability, and validity.

Equally important to valid measurement is appropriate implementation of the measures. Measure users should verify that they can feasibly, reliably and validly implement the measures within their own systems of care.[1] This includes assessing the completeness and accuracy of the critical data elements used to calculate the measures, implementing the measures following the detailed measure specifications, and evaluating face validity of the resulting measure scores with individuals who have appropriate local expertise.

Implementing Measures for the Appropriate Reporting Units/Level of Care and Data Sources

Quality of care is assessed at multiple levels, such as practices, MCOs or medical/dental benefits administrators (DBAs), public insurance programs, and public health programs. There often are different measurement considerations at different "levels" of care. The level for which a measure is specified may also be referred to as the "reporting unit." In addition, different types of data sources (e.g., administrative claims, EHRs, or surveys) have different strengths and limitations. Measure development takes into account both the reporting unit and the data source.

Measures should be reported at the level (e.g., program, plan, or practice) and using the data source (e.g., administrative claims or EHR) for which they were developed and validated. Implementation of measures at different levels or with different data sources than those for which the measure was intended may not be reliable.

Implementing Measures in Accountability Applications

Performance measures are increasingly being used for accountability applications, which include consumer report cards, pay for performance programs, value-based payments, certification, and accreditation.

Before using a measure for accountability purposes, it is strongly recommended that the accountability application be preceded by a period during which reporting entities gain experience with measure implementation, data are collected to establish baseline values, and appropriate benchmarks for comparison and performance goals are identified.

The National Quality Forum advises:[9]

> When performance measures are used for accountability applications such as public reporting and pay-for-performance, then purchasers, policymakers and other users of performance measures should assess the potential impact on disadvantaged patient populations and the providers/health plans serving them to identify unintended consequences and to ensure alignment with program and policy goals. Additional actions such as creating peer groups for comparison purposes could be applied. (p. 11)

Incorporating quality measures for accountability applications should be tested using multiple years of measure data to evaluate whether the application achieves the intended goals and whether there are unintended consequences that may undermine quality improvement efforts. It is incumbent upon the users of performance measures to carefully evaluate these impacts prior to implementing the accountability application. Development of benchmarks for quality measures used in any reporting applications should be guided by historical data evaluation for the population being served. When used in pay-for-performance application, the Medicaid state agency or other organization instituting the program should develop benchmarks using historical data based on the same definition of the measure that the responsible reporting entities (e.g., MCOs, DBAs) will be held accountable to and should test the application prior to implementation. Additionally, benchmarks need to be evaluated for each re-measurement period to avoid undermining the strides in quality improvements.

Implementing measures initially in non-accountability quality improvement initiatives can inform the development of accountability applications. Accountability applications should be considered only after there is experience with measure implementation, careful review and interpretation of the resulting measure rates, and an evaluation of the measure's effectiveness in promoting identified quality improvement and care goals.

Reporting Measure Time Trends

Quality improvement efforts require establishing baseline values of the quality measures being used and monitoring performance on those measures over time to assess whether improvements are occurring. Consequently, examining measure performance over time is a critical aspect of quality improvement. However, there are factors that may limit the ability to make reliable comparisons in measure performance between years. For example, if there are significant changes in measure specifications, then comparing measure scores over time using the different specifications will not provide a reliable indication of performance over time. Examples of significant changes in DQA measure specifications include changes to the pediatric sealant measures that became effective in January 2020.

Ultimately, what constitutes a significant change for reliably comparing measures over time must be determined by the measure user based on intended use. Historical changes to DQA adult measures are contained in Appendix 1. For example, effective January 2022, measure specifications were modified to exclude completely edentulous individuals from the denominators of the adult topical fluoride measure and measures focused on individuals with a history of periodontitis. **Measure users who wish to examine time trends for a measure that has undergone changes in specifications should apply the same version of the specifications (current version or a previous version) across all years of interest.** When applying the same set of specifications across years, users should note whether there have been any changes in relevant codes (e.g., introduction or removal of procedure codes, diagnosis codes, etc.) during those years and assess the impact of those code changes on the reported measure scores.

Comparing Measures Between Reporting Entities

Measure users are often interested in comparing their performance to a national benchmark or to other similar entities in order to assess their performance in a broader context and to inform quality improvement goal setting. Direct comparisons to other reporting entities (e.g., comparing performance between two Medicaid programs or between two MCOs) should be done with caution as multiple factors may influence relative performance. From a measurement perspective, it is important to ensure that there is comparability in data availability, data quality, and measure calculation. For example, when comparing measure scores between MCOs that participate in a Medicaid program, a newly-participating MCO may

not have equivalent historical information for measures that require data from years prior to the reporting year.

The DQA has published an Oral Healthcare Quality Dashboard capable of dynamically-generating reports based on analyses of DQA measures using Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAFs) from the Centers for Medicare and Medicaid Services (CMS). This dashboard allows for assessments of performance on DQA measures by state, including data quality indicators for each state and measure, with comparisons to a national benchmark for selected DQA measures. These reports are part of a research project titled "The State of Oral Healthcare Use, Quality and Spending: Findings from Medicaid and CHIP Programs," made possible through Data Use Agreement (DUA) RSCH-2020-55639 with CMS.

2. Data Collection, Preparation, and Reporting for Measures Implemented using Administrative Enrollment and Claims/Encounter Data

A. Defining Reporting Year: Calendar Year versus Federal Fiscal Year

If not otherwise specified, the definition of "reporting year" can be either calendar year (CY) (January 1, 20XX – December 31, 20XX) or federal fiscal year (FFY) (October 1, 20XX through September 30, 20YY). During testing of the DQA Starter Set, the results were similar between these two definitions. Agencies requesting measurement scores should specify the reporting year. The reporting year should be reported with the measurement score. Some measures require data from time periods preceding the reporting year. The measure technical specifications indicate the data collection period required.

B. Level of Measurement/Reporting Unit

Measures using administrative data may be specified for reporting at the program (e.g., Medicaid) or plan (e.g., MCO or DBA) level. The technical specifications for each measure specify for which reporting unit the measure was developed and validated. Reporting on the measure for a unit other than that for which the measure was developed may not be reliable.

C. Data Quality

Critical data elements are those without which the measure cannot be calculated (e.g., birth date, date of service, and procedure codes). Stratification data elements are those data elements used for reporting of the measure score by population characteristics (e.g., race, ethnicity, and geographic location). Particularly for critical data elements, reporting entities should identify error thresholds — the maximum percentage of missing or invalid values that will be accepted — prior to adopting a measure. Following guidance from CMS, it is recommended that data element error thresholds be set below 5%.[10] Reporting entities should have detailed protocols in place for routinely assessing data completeness, accuracy, and quality.

Although reliability and validity of the DQA Measures has been established, ultimate reliability and validity of reported measure scores depend critically on the quality of the data that are used to calculate the measures. The completeness (percentage of missing or invalid values) and accuracy of all critical data elements should be investigated prior to measurement for the reporting unit and reporting year.

D. Age Eligibility

The technical specifications identify the eligibility criteria for each measure. DQA Measures are developed for alignment and use across public and private sectors. When used for comparisons across Medicaid/CHIP programs, the DQA has included individuals aged younger than 21 years (<21 years) in its pediatric measures to be consistent with Medicaid Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) eligibility. When used for reporting within a Health Insurance Marketplace under the Affordable Care Act, plans should include individuals younger than aged 19 years (<19 years) for pediatric measures to be consistent with the age requirements for Essential Dental Benefit coverage. Entities reporting for other programs or purposes should check with program officials regarding the appropriate age criterion. The age criterion used should be reported with the measurement score.

The DQA uses 18 years as its lower age bound for potential inclusion in adult measures to be consistent with the lower age bound included in the Medicaid Core Set of Adult Health Care Quality Measures and the Health Insurance Marketplace Quality Rating System. Because age eligibility varies for pediatric and adult dental benefit coverage across the public and private

sectors, the age ranges for pediatric measures and adult measures may overlap. Measure specifications between adult and pediatric populations for the same measure concept (e.g., topical fluoride) may be different; therefore, it is important that measure implementers consult the appropriate specifications and not use the same measure specifications across both populations. Program officials should be consulted to confirm the upper bound of the age range that should be reported for pediatric measures and the lower bound of the age range that should be reported for adult measures. The age criteria used should be reported with the measure scores, and comparisons between programs should be limited to uniform age bounds.

E. Dental Benefits Eligibility

Many measures are appropriate only for those members eligible for dental benefits. The measure specifications indicate whether enrolled members who are not eligible for dental benefits should be excluded. The number of individuals excluded should be reported.

F. Measures Requiring Additional Claims Data (e.g., Medical and Pharmacy)

Some measures, such as Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults and Adults with Diabetes – Oral Evaluation, require claims data from medical encounters (both measures) and pharmacy services (diabetes measure). Consequently, these measures only apply to programs, such as Medicaid, or plans that provide both medical and dental benefits. Use of these measures as a requirement for stand-alone dental benefit plans may result in feasibility issues due to lack of access to necessary data. Use by health plans that provide both medical and dental benefits to a population may be considered after assessment of data element feasibility within the plans' databases.

G. Enrollment Eligibility: Calculating Continuous Enrollment for Reporting at the Plan ("Same" Plan) and Program ("Any" Plan) Levels

Continuous enrollment for measures with 180-day (6-month) enrollment criteria requires that there be no gap in coverage. Continuous enrollment for measures with full-year enrollment criteria allows for a single one-month gap in coverage. At the state program level (e.g., Medicaid) a criterion of "any" plan applies when assessing continuous enrollment, whereas at the plan level (e.g., MCO or DBA) a criterion of "same" plan applies. That is, at the program level, all enrollment months are counted regardless of whether the enrollee switched plans during the reporting period; at the plan level, only enrollment months in the particular plan are

counted. The criterion of "any" plan versus "same" plan should be reported with the measure rate. While this prevents direct aggregation of results from plan to program, each entity is given due credit for the population it serves. Thus, programs with multiple MCOs and/or DBAs should not merely "add up" the plan level rates but should calculate the overall program rate (i.e., using the "any" plan criterion) from their databases to allow inclusion of individuals who were continuously enrolled but switched plans during the reporting year. Measure implementers also are encouraged to report the average enrollment duration of all members included in the denominator with the measure rate (total number of months enrolled/total unduplicated members).

H. Paid and Unpaid Claims

The technical specifications for each measure indicate whether only paid claims should be used or whether both paid and unpaid claims (including pending, suspended, and denied claims) should be used. The intent of measures that specify both paid and unpaid claims is to capture whether or not the enrollee received the service that is the focus of the measurement during the reporting period regardless of whether the claim for that service was paid. Paid claims include services covered under a per member per month (PMPM) payment. Only the most recent disposition of adjudicated claims should be used, and implementers should allow for at least three months of claims run-out from the end of the reporting period before calculating the measures. For example, if the reporting period is calendar year 2022, then the measures should not be run before April 1, 2023 to allow sufficient time for claims processing. Implementers should check with program administrators for any requirements related to claims run-out. In the absence of program requirements, implementers should verify that the run-out period is long enough to have sufficiently complete claims for reliable reporting. The claims run-out period should be reported with the measure rate.

I. Bundled Services Reported Using a Single Code on Dental Procedures and Nomenclature (CDT) Code

Some state programs may reimburse a single amount for a bundled set of services – e.g., oral evaluation, topical fluoride, and prophylaxis. In such instances, providers should be encouraged to record all the services rendered on the claim form using the appropriate CDT codes. For calculating a measure, procedure codes should be interpreted according to the descriptions in the CDT manual. For example, if professionally applied topical fluoride is included as part of a

bundled service under a procedure code other than CDT codes D1206 or D1208 and there is no record of D1206 or D1208 on the claim submitted for the bundled service, then it would not be included in the numerator for the Topical Fluoride measure.

J. FQHC Encounter Billing

Some FQHCs may be reimbursed based on an encounter — i.e., they are reimbursed based on each visit and not on the individual services provided during that visit. In such instances, that encounter may be captured in the claims system as a designated procedure/encounter code. Information on the specific services provided during that encounter is not captured. Performance reports from programs and plans should note such reimbursement policies and acknowledge the policy's limitation for accurately capturing service provision.

K. Non-FFS Reimbursement

Providers who are reimbursed using payment methods other than fee-for-service (e.g., capitation, salary, and hybrid payment methodologies) should be required to submit information on all rendered services on the encounter form to enable appropriate quality measurement. Programs and plans that reimburse FQHCs on an encounter payment basis may want to consider approaches for capturing information on each rendered service to promote accurate quality measurement.

L. Identifying Individuals at "Elevated" Risk for Dental Caries

Evidence-based guidelines suggest a risk-based approach to prevention.[11] Consequently, some DQA measures are limited to individuals identified as being at "elevated risk" for caries. Individuals are identified as being at elevated caries risk through the presence of caries risk assessment findings codes (D0602 and D0603) or the presence of CDT codes signifying caries-related treatment (Table 2) using the following approach:

a. If subject meets ANY of the following criteria, then include in **denominator:** (**Note:** BOTH (i) and (ii) should be checked to see if subject satisfies any criteria):

   i. the subject has at least 3 instances of the CDT Codes among those in Table 2 in the reporting year OR the three prior years ("look-back" approach)

      Note 1: There must be at least 3 instances of CDT codes contained in Table 2. These three instances may occur during the same visit or during separate visits. The three instances may occur in any one or more of: the reporting year and the three prior years. The three instances may all occur in the same year, or they may be spread

across the years. The same code can be used to count for more than one instance. This criterion does not require unique dates or service or unique codes.
Note 2: The subject does not need to be enrolled in any of the prior three years for the denominator enrollment criteria; this is a "look back" for enrollees who do have claims experience in any of the prior three years.

OR

ii. the subject has a visit with a CDT code = (D0602 or D0603) in the reporting year.

b. If the subject does not meet either of the above criteria for elevated risk, then STOP processing. This enrollee will not be included in the measure denominator.

Table 2: CDT Codes to identify adults at "elevated caries risk"

D1352	D1354	D2393	D2620	D2712
D2790	D2140	D2394	D2630	D2720
D2791	D2150	D2410	D2642	D2721
D2792	D2160	D2420	D2643	D2722
D2794	D2161	D2430	D2644	D2740
D2799	D2330	D2510	D2650	D2750
D2931	D2331	D2520	D2651	D2751
D2932	D2332	D2530	D2652	D2752
D2933	D2335	D2542	D2662	D2753
D2390	D2543	D2663	D2781	D2780
D2391	D2544	D2664	D2782	
D2392	D2610	D2710	D2783	

The measure specifications include identification of elevated risk through specific procedure codes indicative of caries-related lesion treatment identified in administrative claims data during the period spanning the reporting year and the three prior years**. Implementers should check for both the risk assessment findings codes and the caries-related treatment codes to identify individuals at elevated risk. These are NOT alternative methodologies; they are complementary methodologies.** Individuals do not have to be enrolled in the prior years. The past history is only a look-back period for available claims. **The reporting year remains a single year and is the only year for which minimum enrollment length must be verified.** Some individuals who meet enrollment criteria in the reporting year may not have the claims history with the same plan for all three prior years. The denominator requires inclusion of those individuals who can be inferred to be at elevated risk for dental caries with administrative claims data and is not intended to be a prevalence measure of all individuals at elevated risk.

M. Exclusion of Edentulous Individuals

Individuals who are completely edentulous, as identified through CDT codes signifying that an individual has complete dentures, are excluded from the denominators of the following measures for the adult population:

1. Topical Fluoride for Adults at Elevated Caries Risk
2. Periodontal Evaluation in Adults with Periodontitis
3. Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis

For the adult Topical Fluoride measure:

- Patients are excluded from the denominator if CDT codes indicate the maxillary and mandibular arches have been restored with any combination of complete dentures, implant supported removable dentures or implant supported full arch fixed restorations.
- Patients are not excluded from the denominator if CDT codes indicate treatment with tooth supported overdentures in either arch.

For the periodontal measures:

- Patients are excluded from the denominator if CDT codes indicate the maxillary and mandibular arches have been restored with complete dentures.
- Patients are not excluded from the denominator if CDT codes indicate treatment with either tooth or implant supported overdentures in either arch.

Table 3. Codes Used to Identify Completely Edentulous Adults

Topical Fluoride for Adults at Elevated Caries Risk	**Periodontal Evaluation in Adults with Periodontitis** and **Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis**
i. Any one CDT code from the set: [D5110 or D5130 or D5810 or D5410 or D5512 or D5710 or D5730 or D5750 or D6110 or D6114 or D6119] AND ii. Any one CDT code from the set: [D5120 or D5140 or D5811 or D5411 or D5511 or D5711 or D5731 or D5751 orD6111 or D6115 or D6118]	i. Any one CDT code from the set: [D5110 or D5130 or D5810 or D5410 or D5512 or D5710 or D5730 or D5750] AND ii. Any one CDT code from the set: [D5120 or D5140 or D5811 or D5411 or D5511 or D5711 or D5731 or D5751]

N. Stratification by Enrollee and Program Characteristics

The DQA encourages the measure results to be stratified by age, race, ethnicity, geographic location, socioeconomic status, payer type, and program/plan type. Measure score stratification enables implementers to identify variations in care by enrollee and program characteristics, which can be used to inform quality improvement initiatives, reduce disparities, and promote health equity.[12] To stratify the measure results, the denominator population is divided into different subsets based on the characteristic of interest (e.g., age, race, ethnicity, or geographic location) and the rates are reported for each sub-population.

General guidance on reporting stratifications includes:

- Each stratification variable should be reported on **mutually exclusive** categories (i.e., each individual in the denominator should be counted in only one stratification category).
- Reporting entities (e.g., programs, MCOs, DBAs) should evaluate the extent to which there is **missing data**. The percentage of missing values should be reported with the stratifications. When missing data exceed 10%, stratifications should be interpreted with caution.

Guidance on reporting on specific stratification variables is provided below.

Race and Ethnicity

To promote consistency in the race/ethnicity categories, measures may be stratified by the following aggregated and **mutually exclusive** race and ethnicity categories:

- Hispanic
- Non-Hispanic White
- Non-Hispanic Black
- Non-Hispanic other race or multiple race

Note: Report the percentage of individuals in the overall measure denominator with unknown/missing values.

Individuals should be assigned to only one of the above categories. Individuals who select Hispanic ethnicity alone, or in combination with any of the race categories, should be classified as Hispanic. Non-Hispanic individuals who select more than one race category should be classified as multiple race. The above categories represent a minimum set of categories that are most likely to ensure sufficient denominator sizes for reliable reporting.

Sex

- Female
- Male

Note: Report the percentage of individuals in the overall measure denominator with unknown/missing values.

Payer Type

- Private
- Medicaid
- Other Public
- Uninsured

Note: Report the percentage of individuals in the overall measure denominator with unknown/missing values.

Individuals with more than one source of coverage, should be classified into one category based on the primary payer. Individuals who had more than one primary payer type during the year (e.g., because they switched coverage) should be classified according to the payer type with the longest coverage duration.

Geographic Location

- Urban
- Rural

Note: Report the percentage of individuals in the overall measure denominator with unknown/missing values.

Methodology to classify geographic location:

- Use the enrollee's residence zip code.
- Map the zip code to one of Rural-Urban Commuting Areas (RUCA) codes using the 2010 Rural-Urban Commuting Area Codes, ZIP code file available at: https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/.
- Use Categorization D to classify rural versus urban place of residence; available at: http://depts.washington.edu/uwruca/ruca-uses.php.

Special health care needs (SHCN)

- Special health care needs (CDT code D9997 is recorded)
- No special health care needs

Identifying SHCN individuals from claims data is possible through the introduction of CDT code D9997 CDT code (D9997) *dental case management - patients with special health care needs*

Description: Special treatment considerations for patients/individuals with physical, medical, developmental or cognitive conditions resulting in substantial functional limitations, which require that modifications be made to delivery of treatment to provide comprehensive oral health care services.

Note: The absence of CDT D9997 may reflect that a patient does not have special health care needs or it may reflect missing data (i.e., the provider does not record this code regardless of whether the patient was assessed for special health care needs). This code is best used for stratification in settings that have established consistent screening and recording of special health care needs.

3. Measure Specification Updates

The DQA has an annual measure review and maintenance process that includes a 30-day public comment period. The annual measure review reports are available on the DQA website.[6] During the 2022 annual measure review, there were some changes to the measure specifications. Measure specification updates are summarized in Appendix 1.

4. Frequently Asked Questions

A. Classifying Individuals at Elevated Caries Risk

Applicable Measure:

- Topical Fluoride for Adults at Elevated Caries Risk

A1. Why did the DQA not consider all Medicaid-enrolled individuals as being at "elevated risk"?

The DQA has focused measurement of topical fluoride receipt on adults at elevated risk for dental caries to focus on a priority population where evidence of effectiveness is greatest and

there is the least uncertainty about the appropriateness of the intervention. The evidence-based guidelines regarding topical fluoride developed by the American Dental Association[13] recommend that these services be provided for individuals "at-risk" for dental caries. Testing data found that significant performance gaps existed within elevated caries risk populations.[14,15]

Within the care delivery system, evidence-based guidelines also recommend that **patient-level risk assessment** should drive treatment planning and care delivery. Accordingly, the DQA's approach to performance measurement within the care delivery system is based on these patient-centered decisions instead of using broad population level indicators such as socio-economic status to measure performance. Not every person enrolled in Medicaid is at elevated caries risk. While social determinants play a significant role in influencing outcomes, their impact on each patient needs to be carefully assessed. Encouraging individualized risk-based care, in itself, is a quality improvement activity.

Creation of a "performance" measure should not be construed as a policy statement or as a basis for altering benefit design. For example, a performance measure focusing on preventive services for individuals ***at elevated risk*** does not imply that only individuals at elevated risk should receive the services; the measure is simply a means of assessing to what degree preventive services are being provided to a particular group of individuals for whom guidelines have established good evidence for recommending the services.

A2. Why use methodologies that require prior years' data to identify elevated risk, which may impact feasibility?

Based on the best current evidence, the National Institute for Health and Care Excellence (NICE) suggests that "clinical judgment of the dentist and his or her ability to combine risk factors, based on their knowledge of the patient and clinical and socio-demographic information is as good as, or better than, any other method of predicting caries risk."[16] Therefore, the DQA risk-based measures specifications include the caries-risk assessment CDT codes introduced in 2014. In addition, evidence from a systematic review indicates that previous caries experience is an important predictor of future disease.[17] Therefore, additional methodology to identify individuals at elevated risk was included that is based on prior caries experience, which can be identified using caries-related treatment codes in administrative claims data. The DQA "look-back method" uses a tested methodology to identify individuals whose claims history is indicative of caries risk. Measure implementers should use both caries risk assessment codes and the caries-related treatment codes to identify individuals at elevated caries risk.

It is important to note that the methodology used to identify elevated caries risk is not intended as a "risk assessment tool" to be used at the level of individual patients either to assess risk or to define dental benefits or qualification for services for specific groups of individuals. It is only a model used to identify individuals who can be inferred to be at "elevated risk" for caries using claims data for the purpose of measuring program performance. This method is not intended to identify every person who may be at elevated risk.

A3. Should individuals be enrolled in each of the three years to apply the 'look-back method'?

There is no enrollment requirement during the three years prior to the reporting year. The past history is a look-back period for *available* claims. The reporting year remains a single year and is the only year during which minimum enrollment length must be verified.

A4. What should I do if I do not have 3 years of claims history prior to the reporting year for some individuals meeting the enrollment criteria in the reporting year?

The measure specifications require looking for specified caries-indicative codes in the reporting year and in the three prior years for available claims. Some individuals who meet enrollment criteria in the reporting year may not have the claims history with the same plan for prior years. The intent is to identify those individuals who can be confirmed as being at elevated risk; the intent is not to identify all individuals at elevated risk. The measure includes the subset of individuals who can be identified as being at elevated risk using claims data.

A5. If I am a new plan in Medicaid or am entering a new market and do not have any claims from prior years, what can I do?

If the prior three years claims history is not available, this should be noted within the final reports with an indication of how many prior years (if any) of data were used. When fewer years of historical data are used, the number of individuals who qualify for the denominator will decrease and the measure rates may be impacted. Comparison between plans may not be valid unless all plans use the same look-back period.

B. *Topical Fluoride for Adults at Elevated Caries Risk*: Why were 2 fluoride applications selected to qualify for the numerator?

Evidence-based guidelines for adults suggest that professionally applied topical fluoride every 3-4 months is effective in preventing caries in adults at elevated risk for dental caries.[11] Programs and plans that wish to further explore receipt of topical fluoride among their enrollees to inform quality improvement efforts may find it useful to evaluate the number and percentage of individuals at increased caries risk who received 0, 1, 2, 3, or 4 or more topical fluoride applications.

C. Identifying Individuals with a History of Periodontitis

Applicable Measures:

- Periodontal Evaluation in Adults with Periodontitis
- Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis

C1. Do the measures distinguish between aggressive and chronic periodontitis?

No, due to lack of diagnostic codes in claims data, these measures do not distinguish between aggressive and chronic periodontitis. CDT procedure codes indicative of periodontal treatment or maintenance are used to identify "history of periodontitis."

C2. Why use methodologies that require prior years' data to identify individuals with periodontitis, which may impact feasibility?

Both measures are designed to evaluate whether individuals who have a **history of periodontitis** continue to receive care. Therefore, the denominator population is comprised of individuals with periodontal treatment or maintenance in the three prior years.

C3. Should individuals be enrolled in each of the three years to identify "history of periodontitis"?

There is no enrollment requirement during the three years prior to the reporting year. The past history is based on *available* claims. The reporting year remains a single year and is the only year during which minimum enrollment length must be verified.

C4. What should I do if I do not have a full 3 years of claims history prior to the reporting year for some individuals meeting the enrollment criteria in the reporting year?

The measure specifications require looking for specified periodontitis-indicative codes in the three prior years. Some individuals who meet enrollment criteria in the reporting year may not have the claims history with the same plan for all three prior years. The intent is to identify those individuals who can be identified as having periodontitis; the intent is not to identify all individuals with periodontitis. The measure includes the subset of individuals who can be identified as having periodontitis.

C5. If I am a relatively new plan in Medicaid or recently entering a new market and do not have claims history in that program/market for 3 prior years, what can I do?

When three years claims history in the program or market is not available, this should be noted within the final reports with an indication of how many years of data were used. When fewer than three years of historical data are used, the number of individuals who qualify for the denominator will decrease and the measure rates may be impacted. Comparison between plans may not be valid unless all plans use the same look-back period.

C6. If I am a new plan in Medicaid or am entering a new market and do not have any claims from prior years, what can I do?

If there is **no** claims history in prior years, it will not be possible to identify individuals with a history of periodontitis and, therefore, this measure cannot be calculated

D. Why is *Periodontal Evaluation in Adults with Periodontitis* considered a "utilization" measure and *Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis* considered a "process quality measure"?

Utilization measures are identified by the National Quality Measures Clearinghouse as "related health care delivery measures" that "can assess encounters, tests, or interventions that are not supported by evidence for the appropriateness of service for the specified individuals."[18] A process of care quality measure is a "health care-related activity performed for, on behalf of, or by a patient. Process measures are supported by evidence that the clinical process—that is the focus of the measure—has led to improved outcomes."[18] There currently is an insufficient evidence base for associating oral evaluations with improved outcomes for patients with a history of periodontitis. However, oral evaluations can be used to identify the extent to which

adults with a history of periodontitis are being seen for care. The measure *Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis* identifies specific dental care services indicative of ongoing care associated with successful long-term management of periodontal disease.[19-22] The two measures provide complementary information. *Periodontal Evaluation* indicates the percentage of enrollees with a history of periodontitis who are seen for care, whereas *Ongoing Periodontal Care* identifies the percentage of individuals with a history of periodontitis who receive ongoing care. *Periodontal Evaluation* measure scores can provide context for interpreting *Ongoing Periodontal Care* scores by enabling programs to identify what percentage of patients with a history of periodontitis are accessing care.

E. Dual Eligibles: Why are beneficiaries dually eligible for Medicaid and Medicare excluded from the medical-dental measures?

Applicable Measures:

- Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults
- Follow-up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults
- Adults with Diabetes – Oral Evaluation

These measures require medical administrative claims data as well as dental. Medicaid programs frequently do not have access to complete Medicare claims data for dual eligible beneficiaries. Thus, the measure cannot be reliably calculated. A program that does have access to complete Medicare claims data may want to additionally run these measures for its dual eligible population. If a program elects to do this, measure scores for the dual eligible population should be reported separately from the non-dual eligible population. In addition, the program should clearly indicate how it is identifying and defining "dual eligibles" because not all dual eligibles are fully eligible for Medicaid benefits (i.e., some dual eligible beneficiaries may only be eligible for limited Medicaid coverage). The definition for "dual eligible" and the extent of Medicaid benefits coverage for those individuals should be included in reports of measure scores for the dual eligible population.

F. Why are inpatient admissions excluded from *Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults*

and *Follow-Up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults*?

The intent is to measure access by evaluating the proportion of the population that seeks care in the emergency department for ambulatory care sensitive non-traumatic dental conditions and who are subsequently discharged from the ED. Patients who are admitted for hospitalization represent a different category of health care needs and a different episode of care. Patients who receive care in the ED typically do not receive definitive care and are referred to a dental provider. Consequently, the measure of follow-up care focuses on those patients discharged from the ED. Measure testing found that ED visits resulting in inpatient admissions represent fewer than 2% of ED visits. Consequently, exclusion of these visits will not materially affect relative comparisons between programs or evaluation of within-program trends over time. It is important that measure implementers recognize that this measure is ***not designed to measure resource use***. The DQA recognizes that non-traumatic dental condition ED visits that result in inpatient admissions are significant in terms of both health consequences and system resources. Consequently, the measure specifications require that programs report the number of visits excluded because they resulted in inpatient admissions so that programs and other stakeholders are aware of the magnitude of these visits and can monitor trends over time.

G. *Follow-Up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults*: Are the 7-day and 30-day follow up periods for visits with a dentist after a non-traumatic dental condition emergency department visit mutually exclusive?

No, visits that are captured in the 7-day follow-up visit also will be captured in the 30-day follow-up visit.

H. Where can I access state-level oral healthcare quality reports?

The DQA has published an Oral Healthcare Quality Dashboard capable of dynamically-generating reports based on analysis of DQA quality measures using Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAFs) from CMS, which contain state-level Medicaid and CHIP administrative eligibility and claims data. These reports are part of a research project titled "The State of Oral Healthcare Use, Quality and Spending: Findings from

Medicaid and CHIP Programs," made possible through Data Use Agreement (DUA) RSCH-2020-55639 with CMS and are available on the DQA website.

Please contact DQA staff at dqa@ada.org with additional implementation questions.

Appendix 1: User Guide and Measure Specification Substantive Updates

Note: Relatively minor editorial changes in the User Guide and Measure Specifications are not indicated in the tables below. Only more substantive changes are reflected.

2023 Updates: Effective January 1, 2023

General Updates	
Updated effective date, copyright, and weblink citations.	
User Guide Updates	
• Added implementation guidance related to reporting measure time trends.	
• Added implementation guidance related to comparing measures between reporting entities.	
• Added FAQ that provides resource link to the DQA's Oral Healthcare Quality Dashboard.	
• Added Appendix 2: International Classification of Diseases, Clinical Modification, Cross Mapping	
Technical Specifications Updates	
Updates to Existing Measures	
Measure	**Change(s)**
Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults (EDV-A-A) and Follow-Up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults (EDF-A-A)	Added the following ICD-10-CM Diagnosis Codes to Table 1 to identify ED visits for non-traumatic dental conditions: • M26.641 Arthritis of right temporomandibular joint • M26.642 Arthritis of left temporomandibular joint • M26.643 Arthritis of bilateral temporomandibular joint M26.649 Arthritis of unspecified temporomandibular joint • M26.651 Arthropathy of right temporomandibular joint • M26.652 Arthropathy of left temporomandibular joint • M26.653 Arthropathy of bilateral temporomandibular joint • M26.659 Arthropathy of unspecified temporomandibular joint • M35.0C Sjogren syndrome with dental involvement

2022 Updates: Effective January 1, 2022

General Updates	
• Updated effective date, copyright, and weblink citations.	
User Guide Updates	
• Added guidance for excluding edentulous individuals from specific adult measures.	
• Added and updated general guidance and category specific guidance for implementing stratifications.	
Updates to the Technical Specifications	
Measure	**Change(s)**
Topical Fluoride for Adults at Elevated Caries Risk (TFL-A-A)	Added exclusion logic to exclude completely edentulous individuals as identified through the following CDT codes: i. Any one CDT code from the set: [D5110 or D5130 or D5810 or D5410 or D5512 or D5710 or D5730 or D5750 or D6110 or D6114 or D6119] AND ii. Any one CDT code from the set: [D5120 or D5140 or D5811 or D5411 or D5511 or D5711 or D5731 or D5751 orD6111 or D6115 or D6118]
Periodontal Evaluation in Adults with Periodontitis (PEV-A_A) Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis (POC-A-A)	Added exclusion logic to exclude completely edentulous individuals as identified through the following CDT codes: i. Any one CDT code from the set: [D5110 or D5130 or D5810 or D5410 or D5512 or D5710 or D5730 or D5750] AND ii. Any one CDT code from the set: [D5120 or D5140 or D5811 or D5411 or D5511 or D5711 or D5731 or D5751]
Non-Surgical Ongoing Periodontal Care for Adults with Periodontitis (POC-A-A)	Added CDT code D4346 (scaling in presence of generalized moderate or severe gingival inflammation) to the set of codes for inclusion in the numerator.
Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults (EDV-A-A) and Follow-up after Emergency Department Visits for Non-Traumatic Dental	Removed ICD-9-CM Diagnosis Codes in Tables 1 and 2. Added the following ICD-10-CM Diagnosis Codes to Table 1 to identify ED visits for non-traumatic dental conditions: - KØ8.12: Complete loss of teeth due to periodontal diseases - KØ8.121: Complete loss of teeth due to periodontal disease, class I - KØ8.122: Complete loss of teeth due to periodontal disease, class II - KØ8.123: Complete loss of teeth due to periodontal disease, class III

Conditions in Adults (EDF-A-A)	- KØ8.124: Complete loss of teeth due to periodontal disease, class IV - KØ8.129: Complete loss of teeth due to periodontal disease, unspecified class - KØ8.13: Complete loss of teeth due to caries - KØ8.131: Complete loss of teeth due to caries, class I - KØ8.132: Complete loss of teeth due to caries, class II - KØ8.133: Complete loss of teeth due to caries, class III - KØ8.134: Complete loss of teeth due to caries, class IV - KØ8.192: Complete loss of teeth due to other specified cause, class II - KØ8.193: Complete loss of teeth due to other specified cause, class III - KØ8.194: Complete loss of teeth due to other specified cause, class IV - KØ8.421: Partial loss of teeth due to periodontal diseases, class I - KØ8.422: Partial loss of teeth due to periodontal diseases, class II - KØ8.423: Partial loss of teeth due to periodontal diseases, class III - KØ8.424: Partial loss of teeth due to periodontal diseases, class IV - KØ8.432: Partial loss of teeth due to caries, class II - KØ8.433: Partial loss of teeth due to caries, class III - KØ8.434: Partial loss of teeth due to caries, class IV - KØ8.491: Partial loss of teeth due to other specified cause, class I - KØ8.492: Partial loss of teeth due to other specified cause, class II - KØ8.493: Partial loss of teeth due to other specified cause, class III - KØ8.494: Partial loss of teeth due to other specified cause, class IV - KØ8.539: Fractured dental restorative material, unspecified - K11.22: Acute recurrent sialoadenitis - K13.24: Leukokeratosis nicotina palati - K13.3: Hairy leukoplakia - M26.219 Malocclusion, Angle's class unspecified - M26.611: Adhesions and ankylosis of right temporomandibular joint - M26.612: Adhesions and ankylosis of left temporomandibular joint - M26.613: Adhesions and ankylosis of bilateral temporomandibular joint - M26.619: Adhesions and ankylosis of temporomandibular joint, unspecified side - M79.11: Myalgia of mastication muscle
Follow-up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults (EDF-A-A)	**NUCC Code Update** The following NUCC codes are added to the identification of "dental" providers: • 126800000X Dental Providers: Dental Assistant • 122400000X Dental Providers: Denturist

	• 204E00000X Allopathic & Osteopathic Physicians: Oral & Maxillofacial Surgery • 261QD0000X Clinic/Center: Dental • 261QS0112X Clinic/Center: Oral & Maxillofacial Surgery For detailed descriptions, see Health Care Provider Taxonomy Code Set, Version 21.0, National Uniform Claim Committee: https://nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57
Adults with Diabetes – Oral Evaluation	Made the following changes to align with updates to the FFY 2021 Medicaid Adult Core Set diabetes measure: - Exclude from the denominator those enrollees who received palliative care - Exclude from the denominator those enrollees aged >= 66 years with frailty and advanced illness - changed to optional exclusion - Updates to the measure logic and value sets for identifying patients with diabetes using diagnoses in inpatient and outpatient settings.

2021 Updates: Effective January 1, 2021

General Updates	
• Updated effective date, copyright, and weblink citations.	
User Guide Updates	
• Added guidance for stratifying measure scores by special health care needs.	
Updates to the Technical Specifications	
Measure	**Change(s)**
Topical Fluoride for Adults at Elevated Caries Risk (TFL-A-A)	Added the following CDT codes to Table 1: Codes to identify "elevated risk" - D1352 preventive resin restoration in a moderate to high caries risk patient – permanent tooth - D2753: crown – porcelain fused to titanium and titanium alloys
Follow-up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults (EDF-A-A)	**NUCC Code Update** **1223X2210X** Dental Providers; Dentist - Orofacial pain A dentist who assesses, diagnoses, and treats patients with complex chronic orofacial pain and dysfunction disorders, oromotor and jaw behavior disorders, and chronic head/neck pain. The dentist has successfully completed an accredited postdoctoral orofacial pain residency training program for dentists of two or more years duration,

	in accord with the Commission on Dental Accreditation's Standards for Orofacial Pain Residency Programs, and/or meets the requirements for examination and board certification by the American Board of Orofacial Pain. Source: American Academy of Orofacial Pain, http://www.aaop.org Additional Resources: American Board of Orofacial Pain, http://www.abop.net Version 19.1 of the NUCC Health Care Provider Taxonomy Codes (http://nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40)

2020 Updates: Effective January 1, 2020

General Updates
• Updated effective date, copyright, and weblink citations.
User Guide Updates
• Incorporated three additional measures approved by the DQA in June 2019: Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Related Reasons in Adults; Follow-up after Emergency Department Visits for Non-Traumatic Dental Related Reasons in Adults; and Adults with Diabetes – Oral Evaluation
• Added guidance for stratifying measure scores by race/ethnicity, sex, payer type, and geographic location.
• Added Measure Specification Updates section.
• Clarified measure intent of *Ongoing Care in Adults with Periodontitis* in FAQs.
• Added FAQ about the rationale for excluding Medicaid-Medicaid dual eligibles in medical-dental measures.
• Added FAQ about the inpatient admissions exclusions for Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Related Reasons in Adults
• Added FAQ about the follow-up time frames for the measure *Follow-Up after Emergency Department Visits for Non-Traumatic Dental Conditions in Adults* to clarify that the 7-day and 30-day follow-up time frames are not mutually exclusive.
• Added Appendix 1 – Measure Specification Updates.

Technical Specification Updates

Measure	**Change(s)**
Ongoing Care in Adults with Periodontitis (POC-A-A)	Clarified that the measure intent is purposely broader than a measure focused only on D4910, periodontal maintenance in the Measure Purpose section.

Topical Fluoride for Adults at Elevated Caries Risk (TFL-A-A)	Clarified the different types of fluoride captured in the numerator in the Measure Limitations section.

Appendix 2: International Classification of Diseases, Clinical Modification, Cross-Mapping

The measures Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults and Follow-Up after Emergency Department Visits Non-Traumatic Dental Conditions in Adults use the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes to identify relevant ED visits. Programs that wish to evaluate earlier years of data may refer to the ICD-9-CM to ICD-10-CM cross-mapping below as a starting point.

***Note:** This crosswalk is no longer actively maintained. The ICD-10-CM codes below no longer represent the complete set of codes used in the adult ED measures. Users will need to crosswalk newer ICD-10-CM codes on their own.

Table 1. Ambulatory Care Sensitive Non-Traumatic Dental Condition Diagnosis Codes

ICD-9 Code	Description of ICD-9 Code	ICD-10 Code	Description of ICD-10 Code
520.0	Anodontia	K00.0	Anodontia
520.1	Supernumerary teeth	K00.1	Supernumerary teeth
520.2	Abnormalities of size and form of teeth	K00.2	Abnormalities of size and form of teeth
520.3	Mottled teeth	K00.3	Mottled teeth
520.4	Disturbances of tooth formation	K00.4	Disturbances of tooth formation
520.5	Hereditary disturbances in tooth structure, not elsewhere classified	K00.5	Hereditary disturbances in tooth structure, not elsewhere classified
520.6	Disturbances in tooth eruption	K00.6	Disturbances in tooth eruption
520.6	Disturbances in tooth eruption	K01.0	Embedded teeth
520.6	Disturbances in tooth eruption	K01.1	Impacted teeth
520.8	Other specified disorders of tooth development and eruption	K00.8	Other specified disorders of tooth development
520.9	Unspecified disorder of tooth development and eruption	K00.9	Disorder of tooth development, unspecified
521.00	Dental caries, unspecified	K02.9	Dental caries, unspecified
521.01	Dental caries limited to enamel	K02.61	Dental caries on smooth surface limited to enamel

521.02	Dental caries extending into dentine	K02.52	Dental caries on pit and fissure surface penetrating into dentin
521.02	Dental caries extending into dentine	K02.62	Dental caries on smooth surface penetrating into dentine
521.03	Dental caries extending into pulp	K02.53	Dental caries on pit and fissure surface penetrating into pulp
521.03	Dental caries extending into pulp	K02.63	Dental caries on smooth surface penetrating into pulp
521.04	Arrested dental caries	K02.3	Arrested dental caries
521.05	Odontoclasia	K03.89	Other specified diseases of hard tissues of teeth
521.06	Dental caries pit and fissure	K02.51	Dental caries pit and fissure surface limited to enamel
521.06	Dental caries pit and fissure	K02.52	Dental caries on pit and fissure surface penetrating into dentin
521.06	Dental caries pit and fissure	K02.53	Dental caries on pit and fissure surface penetrating into pulp
521.07	Dental caries of smooth surface	K02.61	Dental caries on smooth surface limited to enamel
521.07	Dental caries of smooth surface	K02.62	Dental caries on smooth surface penetrating into dentine
521.07	Dental caries of smooth surface	K02.63	Dental caries on smooth surface penetrating into pulp
521.08	Dental caries of root surface	K02.7	Dental root caries
521.09	Other dental caries	K02.9	Dental caries, unspecified
521.10	Excessive dental attrition, unspecified	K03.0	Excessive attrition of teeth
521.11	Excessive attrition, limited to enamel	K03.0	Excessive attrition of teeth
521.12	Excessive attrition, extending into dentine	K03.0	Excessive attrition of teeth
521.13	Excessive attrition, extending into pulp	K03.0	Excessive attrition of teeth
521.14	Excessive attrition, localized	K03.0	Excessive attrition of teeth
521.15	Excessive attrition, generalized	K03.0	Excessive attrition of teeth
521.20	Abrasion of teeth, unspecified	K03.1	Abrasion of teeth
521.21	Abrasion, limited to enamel	K03.1	Abrasion of teeth
521.22	Abrasion, extending into dentine	K03.1	Abrasion of teeth
521.23	Abrasion, extending into pulp	K03.1	Abrasion of teeth
521.24	Abrasion, localized	K03.1	Abrasion of teeth
521.25	Abrasion, generalized	K03.1	Abrasion of teeth

521.30	Erosion, unspecified	K03.2	Erosion of teeth
521.31	Erosion, limited to enamel	K03.2	Erosion of teeth
521.32	Erosion, extending into dentine	K03.2	Erosion of teeth
521.33	Erosion, extending into pulp	K03.2	Erosion of teeth
521.34	Erosion, localized	K03.2	Erosion of teeth
521.35	Erosion, generalized	K03.2	Erosion of teeth
521.40	Pathological resorption, unspecified	K03.3	Pathological resorption of teeth
521.41	Pathological resorption, internal	K03.3	Pathological resorption of teeth
521.42	Pathological resorption, external	K03.3	Pathological resorption of teeth
521.49	Other pathological resorption	K03.3	Pathological resorption of teeth
521.5	Hypercementosis	K03.4	Hypercementosis
521.6	Ankylosis of teeth	K03.5	Ankylosis of teeth
521.7	Intrinsic posteruptive color changes of teeth	K03.7	Intrinsic posteruptive color changes of hard tissues of teeth
521.81	Cracked tooth	K03.81	Cracked tooth
521.89	Other specific diseases of hard tissues of teeth	K03.89	Other specific diseases of hard tissues of teeth
521.9	Unspecified disease of hard tissues of teeth	K03.9	Disease of hard tissues of teeth, unspecified
522.0	Pulpitis	K04.0	Pulpitis
522.0	Pulpitis	K04.01	Reversible pulpitis
522.0	Pulpitis	K04.02	Irreversible pulpitis
522.1	Necrosis of the pulp	K04.1	Necrosis of the pulp
522.2	Pulp degeneration	K04.2	Pulp degeneration
522.3	Abnormal hard tissue formation in pulp	K04.3	Abnormal hard tissue formation in pulp
522.4	Acute apical periodontitis of pulpal origin	K04.4	Acute apical periodontitis of pulpal origin
522.5	Periapical abscess without sinus	K04.7	Periapical abscess without sinus
522.6	Chronic apical periodontitis	K04.5	Chronic apical periodontitis
522.7	Periapical abscess with sinus	K04.6	Periapical abscess with sinus
522.8	Radicular cyst	K04.8	Radicular cyst
522.9	Other and unspecified diseases of pulp and periapical tissues	K04.90	Unspecified diseases of pulp and periapical tissues
522.9	Other and unspecified diseases of pulp and periapical tissues	K04.99	Other diseases of pulp and periapical tissues
523.00	Acute gingivitis, plaque induced	K05.00	Acute gingivitis, plaque induced
523.01	Acute gingivitis, non-plaque induced	K05.01	Acute gingivitis, non-plaque induced

523.10	Chronic gingivitis, plaque induced	K05.10	Chronic gingivitis, plaque induced
523.11	Chronic gingivitis, non-plaque induced	K05.11	Chronic gingivitis, non-plaque induced
523.20	Gingival recession, unspecified	K06.0	Gingival recession
523.20	Gingival recession, unspecified	K060.10	Localized gingival recession, unspecified
523.20	Gingival recession, unspecified	K060.20	Generalized gingival recession, unspecified
523.21	Gingival recession, minimal	K06.0	Gingival recession
523.21	Gingival recession, minimal	K060.11	Localized gingival recession, minimal
523.21	Gingival recession, minimal	K060.21	Generalized gingival recession, minimal
523.22	Gingival recession, moderate	K06.0	Gingival recession
523.22	Gingival recession, moderate	K060.12	Localized gingival recession, moderate
523.22	Gingival recession, moderate	K060.22	Generalized gingival recession, moderate
523.23	Gingival recession, severe	K06.0	Gingival recession
523.23	Gingival recession, severe	K06013	Localized gingival recession, severe
523.23	Gingival recession, severe	K06023	Generalized gingival recession, severe
523.24	Gingival recession, localized	K06.0	Gingival recession
523.24	Gingival recession, localized	K060.10	Localized gingival recession, unspecified
523.25	Gingival recession, generalized	K06.0	Gingival recession
523.25	Gingival recession, generalized	K060.20	Generalized gingival recession, unspecified
523.30	Aggressive periodontitis, unspecified	K05.20	Aggressive periodontitis, unspecified
523.31	Aggressive periodontitis, localized	K05.21	Aggressive periodontitis, localized
523.31	Aggressive periodontitis, localized	K052.11	Aggressive periodontitis, localized, slight
523.31	Aggressive periodontitis, localized	K052.12	Aggressive periodontitis, localized, moderate
523.31	Aggressive periodontitis, localized	K052.13	Aggressive periodontitis, localized, severe
523.31	Aggressive periodontitis, localized	K052.19	Aggressive periodontitis, localized, unspecified severity
523.32	Aggressive periodontitis, generalized	K05.22	Aggressive periodontitis, generalized

523.32	Aggressive periodontitis, generalized	K052.21	Aggressive periodontitis, generalized, slight
523.32	Aggressive periodontitis, generalized	K052.22	Aggressive periodontitis, generalized, moderate
523.32	Aggressive periodontitis, generalized	K052.23	Aggressive periodontitis, generalized, severe
523.32	Aggressive periodontitis, generalized	K052.29	Aggressive periodontitis, generalized, unspecified severity
523.33	Acute periodontitis	K05.20	Acute periodontitis
523.40	Chronic periodontitis, unspecified	K05.30	Chronic periodontitis, unspecified
523.41	Chronic periodontitis, localized	K05.31	Chronic periodontitis, localized
523.41	Chronic periodontitis, localized	K053.11	Chronic periodontitis, localized, slight
523.41	Chronic periodontitis, localized	K053.12	Chronic periodontitis, localized, moderate
523.41	Chronic periodontitis, localized	K053.13	Chronic periodontitis, localized, severe
523.41	Chronic periodontitis, localized	K053.19	Chronic periodontitis, localized, unspecified severity
523.42	Chronic periodontitis, generalized	K05.32	Chronic periodontitis, generalized
523.42	Chronic periodontitis, generalized	K053.21	Chronic periodontitis, generalized, slight
523.42	Chronic periodontitis, generalized	K053.22	Chronic periodontitis, generalized, moderate
523.42	Chronic periodontitis, generalized	K053.23	Chronic periodontitis, generalized, severe
523.42	Chronic periodontitis, generalized	K053.29	Chronic periodontitis, generalized, unspecified severity
523.5	Periodontosis	K05.4	Periodontosis
523.5	Periodontosis	K05.40	Periodontosis
523.6	Accretions on teeth	K03.6	Deposits (accretions) on teeth
523.8	Other specified periodontal diseases	K05.5	Other periodontal diseases
523.8	Other specified periodontal diseases	K06.1	Gingival enlargement
523.8	Other specified periodontal diseases	K06.3	Horizontal alveolar bone loss
523.8	Other specified periodontal diseases	K06.8	Other specified disorders of gingiva and edentulous alveolar ridge

523.9	Unspecified gingival and periodontal disease	K05.6	Periodontal disease, unspecified
523.9	Unspecified gingival and periodontal disease	K06.9	Disorder of gingiva and edentulous alveolar ridge, unspecified
524.00	Major anomalies of jaw size, unspecified anomaly	M26.00	Unspecified anomaly of jaw size
524.01	Major anomalies of jaw size, maxillary hyperplasia	M26.01	Maxillary hyperplasia
524.02	Major anomalies of jaw size, mandibular hyperplasia	M26.03	Mandibular hyperplasia
524.03	Major anomalies of jaw size, maxillary hypoplasia	M26.02	Maxillary hypoplasia
524.04	Major anomalies of jaw size, mandibular hypoplasia	M26.04	Mandibular hypoplasia
524.05	Major anomalies of jaw size, macrogenia	M26.05	Macrogenia
524.06	Major anomalies of jaw size, microgenia	M26.06	Microgenia
524.07	Excessive tuberosity of jaw	M26.07	Excessive tuberosity of jaw
524.09	Major anomalies of jaw size, other specified anomaly	M26.09	Other specified anomalies of jaw size
524.10	Anomalies of relationship of jaw to cranial base, unspecified anomaly	M26.10	Unspecified anomaly of relationship of jaw-cranial base relationship
524.11	Anomalies of relationship of jaw to cranial base, maxillary asymmetry	M26.11	Maxillary asymmetry
524.12	Anomalies of relationship of jaw to cranial base, other jaw asymmetry	M26.12	Other jaw asymmetry
524.19	Anomalies of relationship of jaw to cranial base, other specified anomaly	M26.19	Other specified anomalies of jaw- cranial base relationship
524.20	Unspecified anomaly of dental arch relationship	M26.20	Unspecified anomaly of dental arch relationship
524.21	Malocclusion, Angle's class I	M26.211	Malocclusion, Angle's class I
524.22	Malocclusion, Angle's class II	M26.212	Malocclusion, Angle's class II
524.23	Malocclusion, Angle's class III	M26.213	Malocclusion, Angle's class III
524.24	Open anterior occlusal relationship	M26.220	Open anterior occlusal relationship
524.25	Open posterior occlusal relationship	M26.221	Open posterior occlusal relationship
524.26	Excessive horizontal overlap	M26.23	Excessive horizontal overlap
524.27	Reverse articulation	M26.24	Reverse articulation
524.28	Anomalies of interarch distance	M26.25	Anomalies of interarch distance

524.29	Other anomalies of dental arch relationship	M26.29	Other anomalies of dental arch relationship
524.30	Unspecified anomaly of tooth position of fully erupted teeth	M26.30	Unspecified anomaly of tooth position of fully erupted tooth or teeth
524.31	Crowding of teeth	M26.31	Crowding of fully erupted teeth
524.32	Excessive spacing of teeth	M26.32	Excessive spacing of fully erupted teeth
524.33	Horizontal displacement of teeth	M26.33	Horizontal displacement of fully erupted tooth or teeth
524.34	Vertical displacement of teeth	M26.34	Vertical displacement of fully erupted tooth or teeth
524.35	Rotation of tooth/teeth	M26.35	Rotation of fully erupted tooth or teeth
524.36	Insufficient interocclusal distance of teeth (ridge)	M26.36	Insufficient interocclusal distance of fully erupted teeth (ridge)
524.37	Excessive interocclusal distance of teeth	M26.37	Excessive interocclusal distance of fully erupted teeth
524.39	Other anomalies of tooth position	M26.39	Other anomalies of tooth position of fully erupted tooth or teeth
524.4	Malocclusion, unspecified	M26.4	Malocclusion, unspecified
524.50	Dentofacial functional abnormality, unspecified	M26.50	Dentofacial functional abnormalities, unspecified
524.51	Abnormal jaw closure	M26.51	Abnormal jaw closure
524.52	Limited mandibular range of motion	M26.52	Limited mandibular range of motion
524.53	Deviation in opening and closing of the mandible	M26.53	Deviation in opening and closing of the mandible
524.54	Insufficient anterior guidance	M26.54	Insufficient anterior guidance
524.55	Centric occlusion maximum intercuspation discrepancy	M26.55	Centric occlusion maximum intercuspation discrepancy
524.56	Non-working side interference	M26.56	Non-working side interference
524.57	Lack of posterior occlusal support	M26.57	Lack of posterior occlusal support
524.59	Other dentofacial functional abnormalities	M26.59	Other dentofacial functional abnormalities
524.60	Temporomandibular joint disorders, unspecified	M26.60	Temporomandibular joint disorder, unspecified
524.60	Temporomandibular joint disorders, unspecified	M26.601	Right temporomandibular joint disorder, unspecified
524.60	Temporomandibular joint disorders, unspecified	M26.602	Left temporomandibular joint disorder, unspecified

524.60	Temporomandibular joint disorders, unspecified	M26.603	Bilateral temporomandibular joint disorder, unspecified
524.60	Temporomandibular joint disorders, unspecified	M26.609	Unspecified temporomandibular joint disorder, unspecified side
524.60	Temporomandibular joint disorders, unspecified	M26.69	Other specified disorders of temporomandibular joint
524.61	Temporomandibular joint disorders, adhesions and ankylosis (bony or fibrous)	M26.61	Adhesions and ankylosis of temporomandibular joint
524.61	Temporomandibular joint disorders, adhesions and ankylosis (bony or fibrous)	M26.621	Arthralgia of right temporomandibular joint
524.61	Temporomandibular joint disorders, adhesions and ankylosis (bony or fibrous)	M26.622	Arthralgia of left temporomandibular joint
524.61	Temporomandibular joint disorders, adhesions and ankylosis (bony or fibrous)	M26.623	Arthralgia of bilateral temporomandibular joint
524.61	Temporomandibular joint disorders, adhesions and ankylosis (bony or fibrous)	M26.629	Arthralgia of temporomandibular joint, unspecified side
524.62	Temporomandibular joint disorders, arthralgia of temporomandibular joint	M26.62	Arthralgia of temporomandibular joint
524.63	Temporomandibular joint disorders, articular disc disorder (reducing or non-reducing)	M26.63	Articular disc disorder of temporomandibular joint
524.63	Temporomandibular joint disorders, articular disc disorder (reducing or non-reducing)	M26.631	Articular disc disorder of right temporomandibular joint
524.63	Temporomandibular joint disorders, articular disc disorder (reducing or non-reducing)	M26.632	Articular disc disorder of left temporomandibular joint
524.63	Temporomandibular joint disorders, articular disc disorder (reducing or non-reducing)	M26.633	Articular disc disorder of bilateral temporomandibular joint
524.63	Temporomandibular joint disorders, articular disc disorder (reducing or non-reducing)	M26.639	Articular disc disorder of temporomandibular joint, unspecified side
524.64	Temporomandibular joint sounds on opening and/or closing the jaw	M26.69	Other specified disorders of temporomandibular joint
524.69	Other specified temporomandibular joint disorders	M26.69	Other specified disorders of temporomandibular joint
524.70	Dental alveolar anomalies, unspecified alveolar anomaly	M26.70	Unspecified alveolar anomaly

524.71	Alveolar maxillary hyperplasia	M26.71	Alveolar maxillary hyperplasia
524.72	Alveolar mandibular hyperplasia	M26.72	Alveolar mandibular hyperplasia
524.73	Alveolar maxillary hypoplasia	M26.73	Alveolar maxillary hypoplasia
524.74	Alveolar mandibular hypoplasia	M26.74	Alveolar mandibular hypoplasia
524.75	Vertical displacement of alveolus and teeth	M26.79	Other specified alveolar anomaly
524.76	Occlusal plane deviation	M26.79	Other specified alveolar anomaly
524.79	Other specified alveolar anomaly	M26.79	Other specified alveolar anomaly
524.81	Anterior soft tissue impingement	M26.81	Anterior soft tissue impingement
524.82	Posterior soft tissue impingement	M26.82	Posterior soft tissue impingement
524.89	Other specified dentofacial anomalies	M26.4	Malocclusion, unspecified
524.89	Other specified dentofacial anomalies	M26.89	Other dentofacial anomalies
524.9	Unspecified dentofacial anomalies	M26.9	Dentofacial anomaly, unspecified
525.0	Exfoliation of teeth due to systemic causes	K08.0	Exfoliation of teeth due to systemic causes
525.10	Acquired absence of teeth, unspecified	K08.109	Complete loss of teeth, unspecified cause, unspecified class
525.12	Loss of teeth due to periodontal disease	K08.429	Partial loss of teeth due to periodontal diseases, unspecified class
525.13	Loss of teeth due to caries	K08.439	Partial loss of teeth due to caries unspecified class
525.13	Loss of teeth due to caries	K08.139	Complete loss of teeth due to caries, unspecified class
525.13	Loss of teeth due to caries	K08.431	Partial loss of teeth due to caries, class I
525.19	Other loss of teeth	K08.499	Partial loss of teeth due to other unspecified cause, unspecified class
525.19	Other loss of teeth	K08.191	Complete loss of teeth due to other specified cause, class I
525.19	Other loss of teeth	K08.199	Complete loss of teeth due to other specified cause, unspecified class
525.20	Unspecified atrophy of edentulous alveolar ridge	K08.20	Unspecified atrophy of edentulous alveolar ridge
525.21	Minimal atrophy of the mandible	K08.21	Minimal atrophy of the

			mandible
525.22	Moderate atrophy of the mandible	K08.22	Moderate atrophy of the mandible
525.23	Severe atrophy of the mandible	K08.23	Severe atrophy of the mandible
525.24	Minimal atrophy of the maxilla	K08.24	Minimal atrophy of the maxilla
525.25	Moderate atrophy of the maxilla	K08.25	Moderate atrophy of the maxilla
525.26	Severe atrophy of the maxilla	K08.26	Severe atrophy of the maxilla
525.3	Retained dental root	K08.3	Retained dental root
525.40	Complete edentulism, unspecified	K08.109	Complete loss of teeth, unspecified cause, unspecified class
525.40	Complete edentulism, unspecified	K08.139	Complete loss of teeth due to caries, unspecified class
525.40	Complete edentulism, unspecified	K08.199	Complete loss of teeth due to other specified cause, unspecified class
525.41	Complete edentulism, class I	K08.101	Complete loss of teeth, unspecified cause, class I
525.41	Complete edentulism, class I	K08.191	Complete loss of teeth due to other specified cause, class I
525.42	Complete edentulism, class II	K08.102	Complete loss of teeth, unspecified cause, class II
525.43	Complete edentulism, class III	K08.103	Complete loss of teeth, unspecified cause, class III
525.44	Complete edentulism, class IV	K08.104	Complete loss of teeth, unspecified cause, class IV
525.50	Partial edentulism, unspecified	K08.409	Partial loss of teeth, unspecified cause, unspecified class
525.51	Partial edentulism, class I	K08.401	Partial loss of teeth, unspecified cause, class I
525.51	Partial edentulism, class I	K08.431	Partial loss of teeth due to caries, class I
525.52	Partial edentulism, class II	K08.402	Partial loss of teeth, unspecified cause, class II
525.53	Partial edentulism, class III	K08.403	Partial loss of teeth, unspecified cause, class III
525.54	Partial edentulism, class IV	K08.404	Partial loss of teeth, unspecified cause, class IV
525.60	Unspecified unsatisfactory restoration of tooth	K08.50	Unsatisfactory restoration of tooth, unspecified
525.61	Open restoration margins	K08.51	Open restoration margins of tooth
525.62	Unrepairable overhanging of	K08.52	Unrepairable overhanging of

	dental restorative materials		dental restorative materials
525.63	Fractured dental restorative material without loss of material	K08.530	Fractured dental restorative material without loss of material
525.64	Fractured dental restorative material with loss of material	K08.531	Fractured dental restorative material with loss of material
525.65	Contour of existing restoration of tooth biologically incompatible with oral health	K08.54	Contour of existing restoration of tooth biologically incompatible with oral health
525.66	Allergy to existing dental restorative material	K08.55	Allergy to existing dental restorative material
525.67	Poor aesthetics of existing restoration	K08.56	Poor aesthetic of existing restoration of tooth
525.69	Other unsatisfactory restoration of existing tooth	K08.59	Other unsatisfactory restoration of tooth
525.71	Osseointegration failure of dental implant	M27.61	Osseointegration failure of dental implant
525.72	Post-osseointegration biological failure of dental implant	M27.62	Post-osseointegration biological failure of dental implant
525.73	Post-osseointegration mechanical failure of dental implant	M27.63	Post-osseointegration mechanical failure of dental implant
525.79	Other endosseous dental implant failure	M27.69	Other endosseous dental implant failure
525.8	Other specified disorders of the teeth and supporting structures	K08.8	Other specified disorders of teeth and supporting structures
525.8	Other specified disorders of the teeth and supporting structures	K08.89	Other specified disorders of teeth and supporting structures
525.8	Other specified disorders of the teeth and supporting structures	M26.79	Other specified alveolar anomalies
525.9	Unspecified disorder of the teeth and supporting structures	K08.9	Disorder of teeth and supporting structures, unspecified
526.0	Developmental odontogenic cysts	K09.0	Developmental odontogenic cysts
526.1	Fissural cysts of jaw	K09.1	Developmental (nonodotogenic) cysts of oral region
526.2	Other cysts of jaws	M27.49	Other cysts of jaws
526.2	Other cysts of jaws	M27.40	Unspecified cyst of jaw
526.3	Central giant cell (reparative) granuloma	M27.1	Giant cell granuloma, central
526.4	Inflammatory conditions of jaw	M27.2	Inflammatory conditions of jaw
526.5	Alveolitis of jaw	M27.3	Alveolitis of jaw
526.61	Perforation of root canal space	M27.51	Perforation of root canal space

			due to endodontic treatment
526.62	Endodontic overfill	M27.52	Endodontic overfill
526.63	Endodontic underfill	M27.53	Endodontic underfill
526.69	Other periradicular pathology associated with previous endodontic treatment	M27.59	Other periradicular pathology associated with previous endodontic treatment
526.81	Exostosis of jaw	M27.8	Other specified diseases of jaws
526.89	Other specified diseases of the jaws	M27.8	Other specified diseases of jaws
526.9	Unspecified disease of the jaws	M27.9	Disease of the jaws, unspecified
526.9	Unspecified disease of the jaws	M27.0	Developmental disorders of jaws
527.0	Atrophy of salivary gland	K11.0	Atrophy of salivary gland
527.1	Hypertrophy of salivary gland	K11.1	Hypertrophy of salivary gland
527.2	Sialoadenitis	K11.20	Sialoadenitis, unspecified
527.2	Sialoadenitis	K11.21	Acute sialoadenitis
527.2	Sialoadenitis	K11.23	Chronic sialoadenitis
527.3	Abscess of salivary gland	K11.3	Abscess of salivary gland
527.4	Fistula of salivary gland	K11.4	Fistula of salivary gland
527.5	Sialolithiasis	K11.5	Sialolithiasis
527.6	Mucocele of salivary gland	K11.6	Mucocele of salivary gland
527.7	Disturbance of salivary secretion	K11.7	Disturbances of salivary secretion
527.7	Disturbance of salivary secretion	R68.2	Dry mouth, unspecified
527.8	Other specified diseases of the salivary glands	K11.8	Other diseases of salivary glands
527.9	Unspecified disease of the salivary glands	K11.9	Disease of the salivary glands, unspecified
528.00	Stomatitis and mucositis, unspecified	K12.2	Cellulitis and abscess of mouth
528.00	Stomatitis and mucositis, unspecified	K12.30	Oral mucositis (ulcerative), unspecified
528.01	Mucositis (ulcerative) due to antineoplastic therapy	K12.31	Oral mucositis (ulcerative) due to antineoplastic therapy
528.01	Mucositis (ulcerative) due to antineoplastic therapy	K12.33	Oral mucositis (ulcerative) due to radiation
528.02	Mucositis (ulcerative) due to other drugs	K12.32	Oral mucositis (ulcerative) due to other drugs
528.09	Other stomatitis and mucositis (ulcerative)	K12.1	Other forms of stomatitis
528.09	Other stomatitis and mucositis (ulcerative)	K12.39	Other oral mucositis (ulcerative)

528.1	Cancrum oris	A69.0	Necrotizing ulcerative stomatitis
101	Vincent's angina	A69.0	Necrotizing ulerative stomatitis
101	Vincent's angina	A69.1	Other Vincent's infections
528.2	Oral aphthae	K12.0	Recurrent oral aphthae
528.3	Cellulitis and abscess of oral soft tissues	K12.2	Cellulitis and abscess of mouth
528.4	Cysts of oral soft tissues	K09.8	Other cysts of oral region, not elsewhere classified
528.4	Cysts of oral soft tissues	K099	Cyst of oral region, unspecified
528.5	Diseases of lips	K13.0	Diseases of lips
528.6	Leukoplakia of oral mucosa, including tongue	K13.21	Leukoplakia of oral mucosa, including tongue
528.71	Minimal keratinized residual ridge mucosa	K13.22	Minimal keratinized residual ridge mucosa
528.72	Excessive keratinized residual ridge mucosa	K13.23	Excessive keratinized residual ridge mucosa
528.79	Other disturbances of oral epithelium, including tongue	K13.29	Other disturbances of oral epithelium, including tongue
528.8	Oral submucosal fibrosis, including of tongue	K13.5	Oral submucosal fibrosis
528.9	Other and unspecified diseases of the oral soft tissues	K13.70	Unspecified lesions of oral mucosa
528.9	Other and unspecified diseases of the oral soft tissues	K13.79	Other lesions of oral mucosa
528.9	Other and unspecified diseases of the oral soft tissues	K13.1	Cheek and lip biting
528.9	Other and unspecified diseases of the oral soft tissues	K13.6	Irritative hyperplasia of oral mucosa
528.9	Other and unspecified diseases of the oral soft tissues	K13.4	Granuloma and granuloma-like lesions of oral mucosa
529.0	Glossitis	K14.0	Glossitis
529.1	Geographic tongue	K14.1	Geographic tongue
529.2	Median rhomboid glossitis	K14.2	Median rhomboid glossitis
529.3	Hypertrophy of tongue papillae	K14.3	Hypertrophy of tongue papillae
529.4	Atrophy of tongue papillae	K14.4	Atrophy of tongue papillae
529.5	Plicated tongue	K14.5	Plicated tongue
529.6	Glossodynia	K14.6	Glossodynia
529.8	Other specified conditions of the tongue	K14.8	Other diseases of the tongue
529.9	Unspecified condition of the tongue	K14.9	Disease of tongue, unspecified
V52.3	Fitting and adjustment of dental	Z46.3	Encounter for fitting and

	prosthetic device		adjustment of dental prosthetic device
V53.4	Fitting and adjustment of orthodontic devices	Z46.4	Encounter for fitting and adjustment of orthodontic device
V58.5	Orthodontics aftercare	Z46.4	Encounter for fitting and adjustment of orthodontic device
V72.2	Dental examination	Z01.20	Encounter for dental examination and cleaning without abnormal findings
V72.3	Dental examination	Z01.21	Encounter for dental examination and cleaning with abnormal findings
784.92	Jaw pain	R68.84	Jaw pain

Table 2. First-Listed Diagnosis Codes to Identify Ambulatory Care Sensitive Non-Traumatic Dental Condition Visits when Paired with an Additional Listed Diagnosis Code from Table 1

ICD9 Codes	Description of Code	ICD10 Codes	Description of Code
682.0	Cellulitis and abscess of face	L03.211	Cellulitis of face
682.0	Cellulitis and abscess of face	L03.212	Acute lymphangitis of face
682.0	Cellulitis and abscess of face	L03.213	Periorbital cellulitis
682.1	Cellulitis and abscess of neck	L03.221	Cellulitis of neck
682.1	Cellulitis and abscess of neck	L03.222	Acute lymphangitis of neck
784.2	Swelling mass or lump in head and neck	R22.0	Localized swelling, mass and lump, head
784.2	Swelling mass or lump in head and neck	R22.1	Localized swelling, mass and lump, neck

End Notes

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