

****Please read the DQA Measures User Guide prior to implementing this measure.****

DQA Measure Specifications: Administrative Claims-Based Measures

Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions in Adults

Description: Number of emergency department (ED) visits for ambulatory care sensitive non-traumatic dental conditions per 100,000 member months for adults

Numerator: Number of ED visits with an ambulatory care sensitive non-traumatic dental condition diagnosis code among individuals 18 years and older

Denominator: All member months for individuals 18 years and older during the reporting year

Rate: (NUM/DEN)x100,000

Rationale: The use of emergency departments (EDs) for non-traumatic dental conditions has been a growing public health concern across the United States (US)^{1,2,3,4,5,6,7,8} with over 2 million visits occurring in 2015.⁹ The majority of ED visits are semi-urgent (53.8%) or non-urgent (23.9%)¹⁰, which can be better managed in an ambulatory care setting. Dental care in an ED setting is not definitive with limited care continuity that ultimately leads to poor oral health outcomes.^{11,12,13}

References:

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National Quality Forum Domain: Access¹

Institute of Medicine Aim: Equity, Safety, Timeliness

National Quality Strategy Priority: Health and Wellbeing

Level of Aggregation: Program (*NOTE: This measure only applies to programs such as Medicaid that provide both medical insurance and dental benefits. Use of this measure as a requirement for stand-alone dental benefit plans will result in feasibility issues due to lack of access to appropriate data. Use by health plans that provide both medical insurance and dental benefits to a population may be considered after assessment of data element feasibility within the plans' databases).*

Improvement Noted As: A lower rate indicates better quality.

Data Required: Administrative enrollment and claims data (medical); single year. When using claims data to determine service receipt, include only paid claims.

Measure Purpose: Examples of questions that can be answered through this measure at each level of aggregation:

1. What is the rate of emergency department visits for ambulatory care sensitive non-traumatic dental conditions in the enrolled population during the reporting period?
2. Over time, does the rate of emergency department visits by adults for ambulatory care sensitive non-traumatic dental conditions stay stable, increase, or decrease?

This measure is designed to measure access to care by evaluating the rate of non-traumatic dental related emergency department visits. This measure is not to be interpreted as a measure of resource utilization.

Applicable Stratification Variables

1. Age: 18, 19-20, 21-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85 and above

Ambulatory Care Sensitive Emergency Department Visits for Non-Traumatic Dental Conditions Calculation

1. Calculate total eligible member months as the sum of all member months for enrollees aged **18 years and older** as of the 15th or 30th day of the month as appropriate for when eligibility determinations are made. Either the 15th or the 30th should be selected and used consistently across all member months during the reporting year.

Note: Exclude all member months (and associated claims in those months) in which an individual was eligible for both Medicare and Medicaid (i.e., "dual eligible").

Reporting notes for age stratifications:

Access measures "assess the ability to obtain needed healthcare services in a timely manner, including the perceptions and experiences of people regarding their ease of reaching health services or health facilities in terms of proximity, location, time, and ease of approach. Examples may include, but are not limited to, measures that address the timeliness of response or services, time until next available appointment, and availability of services within a community." National Quality Forum. "NQF Glossary." Available at: http://www.qualityforum.org/Measuring_Performance/Measuring_Performance.aspx. Accessed May 23, 2019.

- Member months will be attributed to each age stratum based on the member's age as of the 15th or 30th day of the month. Either the 15th or the 30th should be selected and used consistently across all member months during the reporting year.
- One member can contribute member months to more than one age stratum.

YOU NOW HAVE DENOMINATOR (DEN) COUNT: Total member months

2. Identify all emergency department visits for ambulatory care sensitive non-traumatic dental conditions occurring during eligible member months within the reporting year:
 - a. Identify a health care encounter as an ED visit if ANY of the following are met:
 - CPT codes 99281-99285 (ED visit for patient evaluation/management); **OR**
 - Revenue codes 0450-0459 (Emergency Room) or 0981 (professional fees for ER services); **OR**
 - CMS place of service code for professional claims - 23 (Emergency Room)
 - b. Member must be ≥ 18 years on date of visit
 - c. Identify an ED visit as being for an ambulatory care sensitive non-traumatic dental condition if:
 - i. any of the ICD-9-CM/ICD-10-CM diagnosis codes in Table 1 is listed as a FIRST-LISTED diagnosis code associated with the visit

OR

 - ii. (a) any of the ICD-9-CM/ICD-10-CM diagnosis codes in Table 2 is listed as a FIRST-LISTED diagnosis AND (b) any of the ICD-9-CM/ ICD-10-CM diagnosis codes in Table 1 is listed as an ADDITIONAL LISTED diagnosis. (Codes from Table 2 must be accompanied by a code from Table 1 to qualify.)
 - d. Count only one visit per member per day.
 - e. Sum the number of ED visits for ambulatory care sensitive non-traumatic dental conditions.

Reporting note for age stratifications: Numerator cases are stratified based on age on date of ED visit.

3. Exclude all visits resulting in an inpatient admission:
 - a. Identify an ambulatory care sensitive non-traumatic dental condition ED visit as resulting in an inpatient admission if:
 - (i) the patient has an inpatient admission defined by UB Type of Bill = 11x OR 12x OR 41x

AND

 - (ii) that admission occurred within 48 hours:
$$[\text{inpatient admit date}] - [\text{ED admit date}] \geq 0 \text{ days AND } \leq 2 \text{ days}$$

- b. If an ED visit for ambulatory care sensitive non-traumatic dental condition resulted in an inpatient admission, then EXCLUDE this visit. The visit will not be counted.

Note: If there are 2 or more dental ED visits that occurred within 2 days of the same inpatient admission, **only one** of those ED visits should be counted as resulting in an inpatient admission. [Example: If there is one dental-related ED visit on Saturday and a second dental-related ED visit on Sunday with an inpatient admission also occurring on Sunday, then this would be counted as 2 ED visits with one being excluded as “resulting in an inpatient admission” and one retained in the denominator as “did not result in an inpatient admission.”]

YOU NOW HAVE NUMERATOR (NUM) COUNT: Number of ED visits for ambulatory care sensitive non-traumatic dental conditions that did not result in an inpatient admission

4. Report
- Unduplicated number of ED visits in the numerator after exclusions
 - Unduplicated number of member months in denominator
 - Rate per 100,000 member months: $(\text{NUM}/\text{DEN}) \times 100,000$
 - Number of ED visits excluded because they resulted in an inpatient admission

Note: Reliability of the measure score depends on quality of the data that are used to calculate the measure. The percentages of missing and invalid data for these data elements must be investigated prior to measurement. Data elements with high rates of missing or invalid data will adversely affect the accuracy and reliability of the measure rate.

Table 1. Ambulatory Care Sensitive Non-Traumatic Dental Condition ICD-9-CM and ICD-10-CM 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 |

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| | | | 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 |

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| 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 |

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| 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 |

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| 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 |

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| 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 |

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| 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 |

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|--------|--|---------|---|
| 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 |

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|--------|---|---------|---|
| 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 dental restorative materials | K08.52 | Unrepairable overhanging of 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 (nonodontogenic) 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 |

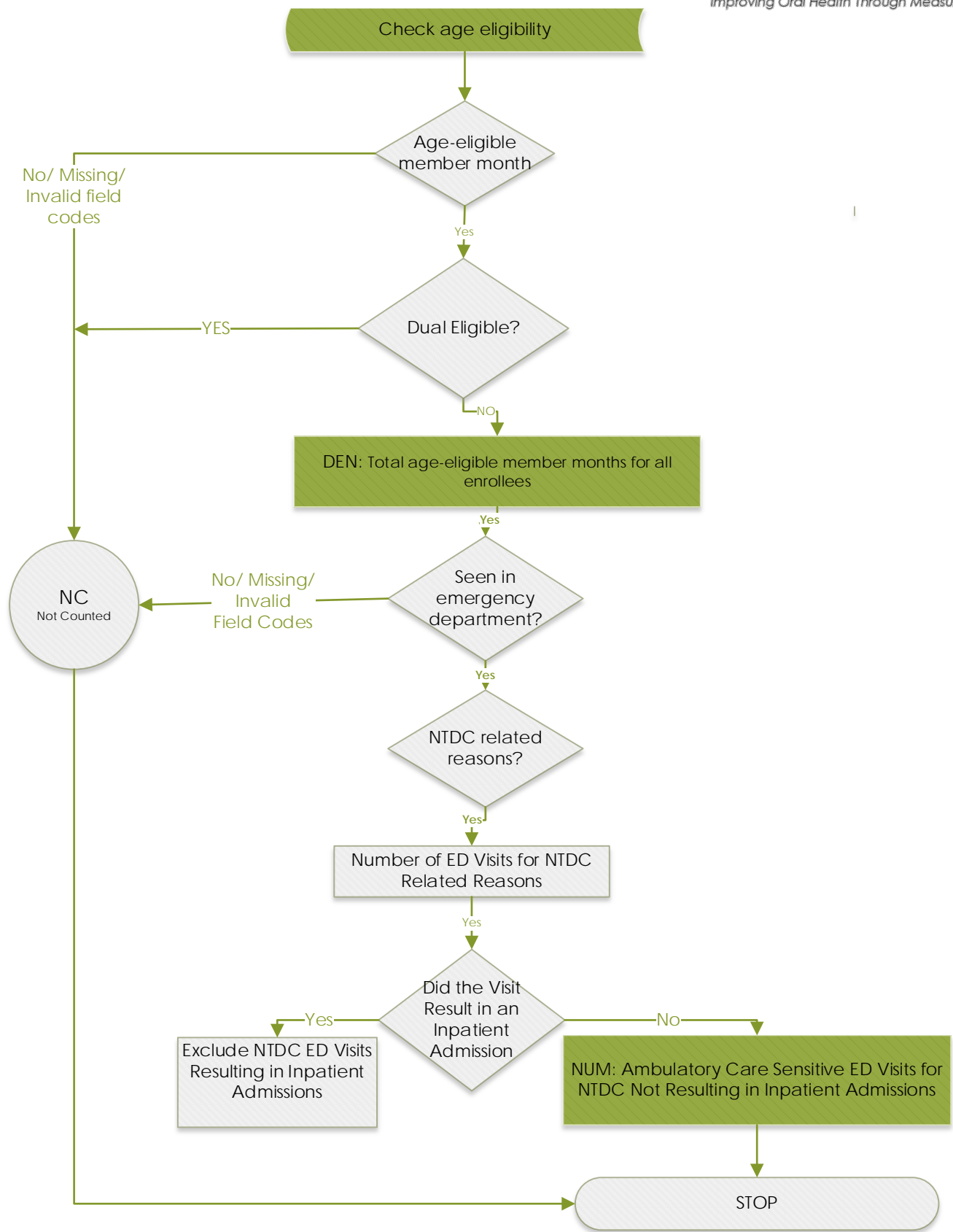
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| 526.3 | Central giant cell (reparative) granuloma | M27.1 | Giant cell granuloma, central |
| 526.4 | Inflammatory conditions of jaw | M27.2 | Inflammatory conditions of jaw |
| 526.5 | Alveolitis of jaw | M27.3 | Alveolitis of jaw |
| 526.61 | Perforation 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 | Cancrem oris | A69.0 | Necrotizing ulcerative stomatitis |
| 101 | Vincent's angina | A69.0 | Necrotizing ulcerative stomatitis |
| 101 | Vincent's angina | A69.1 | Other Vincent's infections |

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|--------|---|--------|---|
| 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 prosthetic device | Z46.3 | Encounter for fitting and 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 |

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|--------|--------------------|--------|--|
| 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. Additional First-Listed ICD-9-CM/ICD-10-CM Diagnosis Codes to Identify Ambulatory Care Sensitive Non-Traumatic Dental Condition Visits when Paired with an Additional Listed Diagnosis Code from the Ambulatory Care Sensitive Non-Traumatic Dental Condition ICD-9-CM/ICD-10-CM Codes in 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 |



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