

AAAAI Allergy, Asthma & Immunology

Quality Clinical Data Registry Powered By ArborMetrix

2022 Quality Measure Specifications

Hosting Measures Owned and Developed by:

The Physician Consortium for Performance Improvement®

**The Joint Task Force on Quality and Performance Measures Workgroup
Approved by the American Academy of Allergy, Asthma & Immunology (AAAAI),
American College of Allergy, Asthma & Immunology (ACAAI) and
The Joint Council of Allergy, Asthma and Immunology**

MN Community Measurement

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Asthma Discharge Plan
Assessment of Asthma Control
Assessment of Asthma Risk
Pharmacologic Therapy for Persistent Asthma
Tobacco Smoke Exposure - Screening
Tobacco Smoke Exposure – Intervention
Asthma Action Plan

These measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance measures are not clinical guidelines and do not establish a standard of medical care.

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MN Community Measurement Measures (MNCM):

Permission granted by MN Community Measurement for denominator modification from patients aged 5 - 50 years to patients aged 5 years and older.

Joint Task Force on Quality Performance Measures (JTF QPM):

Measures developed by the Joint Task Force on Quality and Performance Measures Workgroup have been approved by the American Academy of Allergy, Asthma & Immunology (AAAAI), American College of Allergy, Asthma & Immunology (ACAAI) and the Joint Council of Allergy, Asthma and Immunology. The AAAAI is responsible for the development of the specifications of the measures as included in this document in the QCDR.

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About the AAAAI QCDR

Background

In 2014, the Centers for Medicare and Medicaid Services (CMS) established the qualified clinical data registry (QCDR) as a new individual eligible professional reporting mechanism for the Physician Quality Reporting System (PQRS). According to CMS, a QCDR is a CMS-approved entity that collects medical and/or clinical data for the purpose of patient and disease tracking to foster improvement in the quality of care provided to patients.

The AAAAI QCDR offers a comprehensive range of capabilities to aid providers in their quality improvement and CMS reporting. In addition to data gathering and CMS submission, the QCDR also serves as an improvement tool offering performance tracking, peer benchmarking, improvement opportunity analysis, and case-level analytics. The QCDR is powered by the ArborMetrix platform, a CMS- approved vendor for quality reporting used by thousands of providers via the multiple QCDR its supports.

Requirements

As finalized in the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) and its new approach to payment called the Quality Payment Program rewarding providers under two paths: Advanced Alternative Payment Models (Advanced APMs) and the Merit-based Incentive Payment System (MIPS) for eligible clinicians or groups under the Physician Fee Schedule (PFS), successful reporting through a QCDR in 2020 for the purposes of avoiding the 2022 negative payment adjustment of 9% requires the following:

- Report on up to six (6) measures
- Of these measures, include at least one (1) outcomes measure
- Report for the full calendar year

Since 2016, CMS allows both individual clinicians **and** group practices participating in the GPRO to report quality measures via a QCDR. And as of 2018, a new participation option was added, Virtual Groups reporting.

Please refer to <https://qpp.cms.gov/about/resource-library> for full details on the MIPS and APM categories criteria.

Measures

A qualified clinical data registry (QCDRs) differs from a qualified registry in reporting requirements and is the only MIPS reporting method that hosts non-MIPS measures approved by CMS for the purposes of MIPS reporting. Non-MIPS measures are measures that are not contained in the MIPS measures set released by CMS for the applicable reporting period. These can be “**homegrown**” measures developed by entities such as the Joint Task Force on Quality and Performance Measurement (a joint task force of the AAAAI and the American College of Allergy Asthma and Immunology) or MIPS measures that have substantive differences in the manner reported by the QCDR.

For instance, MIPS measure #398: Optimal Asthma Control is used in the AAAAI QCDR *without* the upper age limit of 50 with the permission of the measure steward, Minnesota Community Measurement, and is therefore considered a non-MIPS measure. Other non-MIPS measures in the AAAAI QCDR include measures from the Bridges to Excellence® Asthma Care Recognition Program, owned and developed by Health Care Incentives Improvement Institute, Inc. Additionally, the AAAAI QCDR hosts 17 MIPS measures.

Registration

In order to register for the AAAAI QCDR, go to www.aaaai.org/qcdr or send inquiry to quality@aaaai.org

Additional Resources

AAAAI QCDR page www.aaaai.org/qcdr

CMS Quality Payment Program (MACRA/MIPS) website www.qpp.cms.gov

EHR Incentive Program Attestation System – [log-in](#)

[EHR Incentive Program Basics](#) for Medicare and Medicaid

MIPS #398: Optimal Asthma Control – National Quality Strategy Domain: Effective Clinical Care

MEASURE TYPE: Outcome

DESCRIPTION:

Composite measure of the percentage of pediatric and adult patients whose asthma is well-controlled as demonstrated by one of three age appropriate patient reported outcome tools and not at risk for exacerbation.

INSTRUCTIONS:

This measure is to be reported a minimum of **once per reporting period** for all patients with a diagnosis of asthma seen during the reporting period. This measure may be reported by clinicians who perform the quality actions described in the measure for the primary management of patients with asthma based on the services provided and the measure-specific denominator coding.

Measure Reporting:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

This measure will be calculated with 7 performance rates:

1. Overall Percentage for patients (aged 5 years and older) with well-controlled asthma, without elevated risk of exacerbation.
2. Percentage of pediatric patients (aged 5-17 years) with well-controlled asthma, without elevated risk of exacerbation.
3. Percentage of adult patients (aged 18 years and older) with well-controlled asthma, without elevated risk of exacerbation.
4. Asthma well-controlled (take the most recent ACT) for patients 5 to 17 with Asthma
5. Asthma well-controlled (take the most recent ACT) for patients 18 years or older with Asthma
6. Patient not at elevated risk of exacerbation for patients 5 to 17 with Asthma
7. Patient not at elevated risk of exacerbation for patients 18 years or older with Asthma

| | |
|------------------|--|
| 1) 398.DEN.1.YES | 1) The patient had at least 2 visits (specifically for asthma) in the reporting period or in the year prior to the reporting period. |
| 2) 398.DEN.2.YES | 2) The patient expired prior to the end of the reporting year OR patient is a permanent nursing home resident OR patient was in hospice or receiving palliative care services at any time during the reporting year. |

DENOMINATOR (REPORTING CRITERIA 1):

Patients ages 5 to 17 with asthma

Denominator Criteria (Eligible Cases) 1:

Patients aged 5-17 years

AND

Diagnosis for asthma (ICD-10-CM): J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998 J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50,

AND

Patient had a diagnosis of asthma with any contact during the current or prior performance period OR had asthma present on an active problem list any time during the performance period

AND

Established patient office visit during the performance period (CPT): 99211, 99212, 99213, 99214, 99215, 99392, 99393, 99394, 99395, 99396

AND NOT

DENOMINATOR EXCLUSIONS:

Diagnosis for chronic obstructive pulmonary disease (COPD), emphysema, cystic fibrosis, or acute respiratory failure (ICD-10-CM): E84.0, E84.11, E84.19, E84.8, E84.9, J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9, J68.4, J96.00, J96.01, J96.02, J96.20, J96.21, J96.22, J98.2, J98.3

OR

Patient died prior to the end of the performance period

OR

Patient was a permanent nursing home resident any time during the performance period

OR

Patient was in hospice or receiving palliative care services at any time during the performance period

OR

Documentation that the diagnosis was in error

OR

Patient had only established patient office visits to an urgent care setting during the performance period

NUMERATOR (All or Nothing):

The number of asthma patients who meet ALL of the following targets

Numerator Options:

Each component should be submitted in order to determine the data completeness and performance rate for the overall percentage of patients that meet ALL targets represented as the numerator.

COMPONENT 1:

Asthma well-controlled (submit the most recent asthma control tool result available during the measurement period)

- Asthma Control Test™ (ACT) score of 20 or above - ages 12 and older
- Childhood Asthma Control Test (C-ACT) score of 20 or above - ages 11 and younger
- Asthma Control Questionnaire (ACQ) score of 0.75 or lower - ages 17 and older
- Asthma Therapy Assessment Questionnaire (ATAQ) score of 0 – Pediatric (ages 5 – 17) or Adult (ages 18 and older)

Component Options:

Performance Met:

Asthma well-controlled based on the ACT, C-ACT, ACQ, or ATAQ score and results documented (**G9432**)

OR

Performance Not Met:

Asthma not well-controlled based on the ACT, C-ACT, ACQ, or ATAQ score, OR specified asthma control tool not used, reason not given (**G9434**)

AND

COMPONENT 2:

Patient not at elevated risk of exacerbation

NUMERATOR NOTE: To meet performance for this component, documentation of the sum of the patients reported values for the following questions must be less than two:

- Number of emergency department visits not resulting in a hospitalization due to asthma in last 12 months
- Number of inpatient hospitalizations requiring an overnight stay due to asthma in last 12 months.

Component Options:

Performance Met:

Total number of emergency department visits and inpatient hospitalizations less than two in the past 12 months (**G9521**)

OR

Performance Not Met:

Total number of emergency department visits and inpatient hospitalizations equal to or greater than two in the past 12 months OR patient not screened, reason not given (**G9522**)

DENOMINATOR (REPORTING CRITERIA 2):

Patients ages 18 and older with asthma

Denominator Criteria (Eligible Cases) 2:

Patients aged 18 and older

AND

Diagnosis for asthma (ICD-10-CM): J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998

AND

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215

AND

Patient had a diagnosis of asthma with any contact during the current or prior performance period OR had asthma present on an active problem list any time during the performance period

AND

Established patient office visit during the performance period (CPT): 99211, 99212, 99213, 99214, 99215, 99392, 99393, 99394, 99395, 99396

AND NOT

DENOMINATOR EXCLUSIONS:

Diagnosis for chronic obstructive pulmonary disease (COPD), emphysema, cystic fibrosis, or acute respiratory failure (ICD-10-CM): E84.0, E84.11, E84.19, E84.8, E84.9, J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9, J68.4, J96.00, J96.01, J96.02, J96.20, J96.21, J96.22, J98.2, J98.3

OR

Patient died prior to the end of the performance period

OR

Patient was a permanent nursing home resident any time during the performance period

OR

Patient was in hospice or receiving palliative care services at any time during the performance period

OR

Documentation that the diagnosis was in error

OR

Patient had only established patient office visits to an urgent care setting during the performance period

NUMERATOR (All or Nothing):

The number of asthma patients who meet ALL of the following targets

Numerator Options:

Each component should be reported in order to determine the reporting and performance rate for the overall percentage of patients that meet ALL targets represented as the numerator.

COMPONENT 1:

Asthma well-controlled (submit the most recent asthma control tool result available during the measurement period)

- Asthma Control Test™ (ACT) score of 20 or above - ages 12 and older
- Asthma Control Questionnaire (ACQ) score of 0.75 or lower - ages 17 and older
- Asthma Therapy Assessment Questionnaire (ATAQ) score of 0 – Pediatric (ages 5 – 17) or Adult (ages 18 and older)

Component Options:

Performance Met:

Asthma well-controlled based on the ACT, C-ACT, ACQ, or ATAQ score and results documented (**G9432**)

OR

Performance Not Met:

Asthma not well-controlled based on the ACT, C-ACT, ACQ, or ATAQ score, OR specified asthma control tool not used, reason not given (**G9434**)

AND

COMPONENT 2:

Patient not at elevated risk of exacerbation

NUMERATOR NOTE: To meet performance for this component, documentation of the sum of the patients reported values for the following questions must be less than two:

- Number of emergency department visits not resulting in a hospitalization due to asthma in last 12 months
- Number of inpatient hospitalizations requiring an overnight stay due to asthma in last 12 months

Component Options:

Performance Met:

Total number of emergency department visits and inpatient hospitalizations less than two in the past 12 months
(G9521)

OR

Performance Not Met:

Total number of emergency department visits and inpatient hospitalizations equal to or greater than two in the past 12 months OR patient not screened, reason not given **(G9522)**

RATIONALE:

Roughly 7% of adults and children in Minnesota are currently living with asthma. Asthma is a chronic disease associated with familial, infectious, allergenic, socioeconomic, psychosocial and environmental factors. It is not curable but is treatable. Despite improvements in diagnosis and management, and an increased understanding of the epidemiology, immunology, and biology of the disease, asthma prevalence has progressively increased over the past 15 years.

CLINICAL RECOMMENDATION STATEMENTS:

From the National Quality Forum's 2013 report, Patient Reported Outcomes (PROs) in Performance Measurement:

Patient and family engagement is increasingly acknowledged as a key component of a comprehensive strategy, (along with performance improvement and accountability), to achieve a high quality, affordable health system. Emerging evidence affirms that patients who are engaged in their care tend to experience better outcomes and choose less costly but effective interventions.

Historically, with the exception of collecting feedback on satisfaction or experience with care, patients remain an untapped resource in assessing the quality of healthcare and of long-term support services. Patients are a valuable and, arguably, the authoritative source of information on outcomes beyond experience with care. These include health-related quality of life, functional status, symptom and symptom burden, and health behaviors.

Patient Reported Outcome Measures (PROMs) are standardized instruments that capture patients' self-assessment of their health and can provide timely information on patient health status, function and symptoms over time that can be used to improve patient-centered care and inform clinical decision-making.

The Asthma Control Test™ (ACT) is a validated self-administered survey utilizing 5 questions to assess asthma control on a scale from 0 (poor control) to 5 (total control) in individuals 12 years and older. © 2002 by QualityMetric Incorporated. Asthma Control Test is a trademark of QualityMetric Incorporated.

The Childhood Asthma Control Test (C-ACT) is a caregiver-assisted, child-completed tool that can be used with or without lung function assessment to assess pediatric asthma control at home or in clinical practice for children ages 4-11 years. It consists of 7 questions of which 4 are child-reported and 3 are caregiver-reported questions. ©2011 The GlaxoSmithKline Group of Companies.

The Asthma Control Questionnaire (ACQ) is a validated, self-administered survey available in various formats from the developer, Elizabeth F. Juniper, MCSP, MSc. [Link to ACQ Survey](#)

The Asthma Therapy Assessment Questionnaire (ATAQ) is available in a version for adults (18 and over) and a version for children and adolescents (5 – 17). © 2011 Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc.

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The Minnesota Community Measurement owned and developed Optimal Asthma Care measure is used in the Allergy, Asthma and Immunotherapy Quality Clinical Data Registry with permission granted by Minnesota Community Measurement for denominator modification from patients aged 5 - 50 years to patients aged 5 years and older.

Specifications are copied and found in the CMS Quality Payment Program website at <https://qpp.cms.gov/about/resource-library>

**AAAAI2: Assessment of Asthma Control – Ambulatory Care Setting – National Quality Strategy
Domain: Effective Clinical Care**

MEASURE TYPE: Process
HIGH PRIORITY/TYPE: NO/NA
INVERSE MEASURE: NO
PROPORTIONAL MEASURE: YES
CONTINUOUS VARIABLE MEASURE: NO
RATIO MEASURE: NO
MEANINGFUL MEASURE AREA: Functional Outcomes
RISK ADJUSTED: NO
TELEHEALTH: YES
OF PERFORMANCE RATES REQ'D: 1
CARE SETTING: AMBULATORY CARE: CLINICIAN OFFICE/CLINIC

DESCRIPTION:

Percentage of patients aged 5 years and older with a diagnosis of asthma who were evaluated at least once during the measurement period for asthma control (comprising asthma impairment and asthma risk)

INSTRUCTIONS:

This measure is to be reported a minimum of **once per reporting period** for patients with asthma seen during the reporting period. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Data Source:

Measure Reporting via Registry:

ICD-10-CM diagnosis codes, CPT codes, and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data. There are no allowable performance exclusions for this measure.

DENOMINATOR:

All patients aged 5 years and older with a diagnosis of asthma

Denominator Criteria (Eligible Cases):

Patients aged ≥ 5 years on date of encounter

AND

Diagnosis for asthma (ICD-10-CM): J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998

AND

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

NUMERATOR:

Patients who were evaluated at least once during the measurement period for asthma control; of those patients whose asthma is poorly controlled, a care plan is updated.

Numerator Instructions: Completion of a validated questionnaire will also meet the numerator requirement for this component of the measure. Validated questionnaires for asthma assessment include, but are not limited to, the Asthma Therapy Assessment Questionnaire [ATAQ], the Asthma Control Questionnaire [ACQ], or the Asthma Control Test [ACT].

The specifications of this numerator enable documentation for the impairment and risk components separately to facilitate quality improvement. Evaluation of asthma impairment and asthma risk must occur during the same medical encounter.

Definition:

Evaluation of Asthma Control - Documentation of an evaluation of asthma impairment which must include: daytime symptoms AND nighttime awakenings AND interference with normal activity AND short-acting beta2-agonist use for symptom control AND documentation of asthma risk which must include the number of asthma exacerbations requiring oral systemic corticosteroids in the prior 12 months.

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

| | |
|------------------------------------|---|
| <u>Performance Met:</u> | Asthma impairment assessed (CPT II 2015F) |
| <u>AND</u> | |
| <u>Performance Met:</u> | Asthma risk assessed (CPT II 2016F) |
| <u>AND</u> | |
| <u>Performance Met:</u> | Care plan updated (G8942) if required |
| <u>OR</u> | |
| <u>Performance Not Met:</u> | Asthma impairment not assessed, reason not otherwise specified (2015F with 8P) |
| <u>OR</u> | |
| <u>Performance Not Met:</u> | Asthma risk not assessed, reason not otherwise specified (2016F with 8P) |
| <u>OR</u> | |
| <u>Performance Not Met:</u> | No care plan was updated (G8543) if required |

RATIONALE:

The goal of asthma therapy is to achieve asthma control. The level of asthma control serves as a basis for treatment modification (ie, whether or not a patient needs a step up or step down in therapy). Patients with poorly controlled asthma can experience significant asthma burden (Fuhlbrigge AL, 2002), decreased quality of life (Schatz M, 2005), and increased health utilization. (Vollmer WM, 2002; Schatz M, 2005) A large international study found that guideline-defined asthma control can be achieved. In their trial, 30% of the patients achieved total control (defined as absence of asthma symptoms) and 60% achieve well-controlled asthma (defined as low-level of symptoms or rescue medication use. (Bateman ED, 2004) A follow-up to this study found that this control can be maintained, which can lead to a decrease in the use of unscheduled health care visits. (Bateman ED, 2008)

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines.

The Expert Panel recommends that asthma control be defined as follows: (Evidence A) (NHLBI, 2007)

- Reduce Impairment
- Prevent chronic and troublesome symptoms (eg, coughing or breathlessness in the daytime, night, or after exertion)
- Require infrequent use (≤ 2 days a week) of SABA for quick relief of symptoms
- Maintain (near) “normal” pulmonary function
- Maintain normal activity levels (including exercise and other physical activity and attendance at work or school)
- Meet patients’ and families’ expectations of satisfaction with asthma care
- Reduce risk
- Prevent recurrent exacerbations of asthma and minimize the need for ED visits or hospitalizations
- Prevent progressive loss of lung function; for children, prevent reduced lung growth
- Provide optimal pharmacotherapy with minimal or no adverse effects

The Expert Panel recommends that ongoing monitoring of asthma control be performed to determine whether all the goals of therapy are met—that is reducing both impairment and risk. (Evidence B) (NHLBI, 2007)

The Expert Panel recommends that the frequency of visits to a clinician for a review of asthma control is a matter of clinical judgment; in general, patients who have intermittent or mild persistent asthma that has been under control for at least 3 months should be seen by a physician about every 6 months, and patients who have uncontrolled and/or severe persistent asthma and those who need additional supervision to help them follow their treatment plan need to be seen more often. (NHLBI, 2007)

The Expert Panel recommends that symptoms and clinical signs of asthma should be assessed at each health care visit through physical examination and appropriate questions. (EPR-2, 1997) (NHLBI/NAEPP, 2007)

The American Academy of Allergy Asthma and Immunology (AAAAI) and PCPI owned and developed measure, Asthma: Assessment of Asthma Control – Ambulatory Care Setting. This measure is equivalent to former PQRS measure #64 with the exception of the modification to the upper age limit.

AAAAI17: Asthma Control: Minimal Important Difference Improvement – National Quality Strategy
Domain: Person and Caregiver-Centered Experience and Outcomes

MEASURE TYPE: Outcome
HIGH PRIORITY/TYPE: YES, Outcome
INVERSE MEASURE: NO
PROPORTIONAL MEASURE: YES
CONTINUOUS VARIABLE MEASURE: NO
RATIO MEASURE: NO
MEANINGFUL MEASURE AREA: Functional Outcomes
RISK ADJUSTED: NO
TELEHEALTH: YES
OF PERFORMANCE RATES REQ'D: 1
CARE SETTING: AMBULATORY CARE: CLINICIAN OFFICE/CLINIC

DESCRIPTION:

Percentage of patients aged 12 years and older whose asthma is not well-controlled as indicated by the Asthma Control Test, Asthma Control Questionnaire, or Asthma Therapy Assessment Questionnaire and who demonstrated a minimal important difference improvement upon a subsequent office visit during the 12-month reporting period.

INSTRUCTIONS:

This outcomes measure is to be reported a **minimum of once per reporting period** for all patients with a diagnosis of asthma who demonstrate a score ≤ 19 on the Asthma Control Test (ACT), ≥ 1.5 on the Asthma Control Questionnaire (ACQ) or ≥ 1 on the Asthma Therapy Assessment Questionnaire (ATAQ) and who had at least one follow-up ACT, ACQ, or ATAQ within the 12-month reporting period. In order to meet this measure, the patient must demonstrate a minimal importance difference (MID) improvement between their asthma control score from the initial visit and a subsequent score taken during the 12-month reporting period using the same patient-completed questionnaire. An increase in score by greater than or equal to 3 points on the ACT, decrease in score by greater than or equal to .5 points on the ACQ or a decrease in score by greater than or equal to 1 point on the ATAQ will indicate a minimal importance difference improvement and a higher measure performance. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific coding.

Data Source:

ICD-10-CM diagnosis codes, CPT codes, patient demographics and medical record data are used to identify patients who are included in the measure's denominator. Medical record data and the listed numerator options are used to report the numerator of the measure.

DENOMINATOR:

All patients aged 12 years or older whose asthma is not well-controlled and who had at least one follow-up ACT, ACQ, or ATAQ within the 12-month reporting period.

Definition:

For the purposes of this measure, asthma that is not well-controlled will be defined by a score of ≤ 19 on the ACT, ≥ 1.5 on the ACQ or ≥ 1 on the ATAQ.

Denominator Criteria (Eligible Cases):

Patients aged ≥ 12 years on date of encounter [AAAAI_17.DEN.1.YES](#)

AND

Diagnosis for asthma (ICD-10-CM): J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998

AND

At least two patient encounters during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

AND

Asthma was not well-controlled based on score of ≤ 19 on the ACT or ≥ 1.5 on the ACQ or ≥ 1 on the ATAQ at one visit

AND

At least one subsequent patient encounter during the reporting period with completion of the same asthma assessment patient-completed questionnaire (ACT, ACQ or ATAQ)

AND NOT

Diagnosis for COPD (ICD-10-CM): J41.0, J41.1, J41.8, J42, J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9

NUMERATOR:

Patients who demonstrate a minimal important difference (MID) improvement using one of the following three asthma assessment patient-completed questionnaires:

- Change in the Asthma Control Test (ACT) by ≥ 3 points
- Change in Asthma Control Questionnaire (ACQ) by ≥ 0.5 points
- Change in Asthma Therapy Assessment Questionnaire (ATAQ) by ≥ 1 point

Numerator Options:

Performance Met:

MID improvement demonstrated, increase in score by ≥ 3 points on the ACT [AAAAI_17.NUMER.1.YES](#)

OR

Performance Met:

MID improvement demonstrated, decrease in score by ≥ 0.5 points on the ACQ [AAAAI_17.NUMER.2.YES](#)

OR

Performance Met:

MID improvement demonstrated, decrease in score by ≥ 1 point on the ATAQ [AAAAI_17.NUMER.3.YES](#)

OR

Medical Performance Exclusion:

Medical reason(s) for patient not demonstrating MID improvement (eg, respiratory infection within 4 weeks of follow-up visit) [AAAAI_17.NUMER.4.YES](#)

OR

Patient Performance Exclusion:

Patient reasons for not demonstrating MID improvement (eg, patients with poor adherence to controller therapy as determined by self-report or pharmacy records (per cent of days covered $< 50\%$)) [AAAAI_17.NUMER.5.YES](#)

OR

Performance Not Met:

MID improvement **NOT** demonstrated, reason not otherwise specified [AAAAI_17.NUMER.6.NO](#)

RATIONALE:

Current asthma guidelines recommend assessing an asthma patient's level of control and emphasize that the goal of asthma therapy is to achieve control. Several validated asthma questionnaires can be used to assess control. In order to assess clinical improvement or worsening of asthma control in an individual or population overtime, the minimal important difference (MID) [also referred to as the minimal clinically important difference or MCID] can be used. The MID is defined as the smallest difference in score on the instrument that represents a clinically significant change (Schatz 2009).

Lack of asthma control impairs quality of life and is a risk factor for subsequent exacerbations. When control is not achieved, escalation of therapy is warranted to attain and maintain control.

Schatz M, Kosinski M, Yaras AS, Hanlon J, Watson ME, Jhingran P. The minimally important difference of the Asthma Control Test. J Allergy Clin Immunol 2009;124(4):719-723 e1, Epub 2009/09/22.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

Once treatment is started, the results of the measures of impairment and risk are used to monitor asthma control rather than severity. Monitoring the level of asthma control is used to adjust medication as needed.

National Asthma Education and Prevention Program Guidelines Implementation Panel Report for: Expert Panel Report 3— Guidelines for the Diagnosis and Management of Asthma, 2008. Bethesda, MD: National Heart, Lung, and Blood Institute, US Dept of Health and Human Services; 2008.

Four instruments have established cutoff values for uncontrolled versus controlled asthma: ACQ score of 1.5 or greater, ACT score of 19 or less, ATAQ score of 1 or greater, and Childhood Asthma Control Test [cACT] score of 19 or less (US study).

Two asthma control composite score instruments (ACQ and ACT) have been designated as core measures for the NIH-initiated clinical research in adults because of (1) the importance of asthma control as a goal of therapy; (2) extensive validation data for these instruments, using the widest range of criterion and construct measures and including demonstration of responsiveness to therapy and an MCID; and (3) low patient burden and risk.

Cloutier MM, Schatz M, Castro M, Clark N, Kelly HW, Mangione-Smith R, et al. Asthma outcomes: composite scores of asthma control. *J Allergy Clin Immunol.* 2012;129(3) Suppl:S24–S33. doi: 10.1016/j.jaci.2011.12.980

The Asthma Control: Minimal Important Difference Improvement measure was developed by the American Academy of Allergy Asthma and Immunology (AAAAI). The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications. The CPT® contained in the measure specification is copyright 2004-2016 American Medical Association.

AAAAI6: Documentation of Clinical Response to Allergen Immunotherapy within One Year – National Quality Strategy Domain: Communication and Care Coordination

MEASURE TYPE: Process
HIGH PRIORITY/TYPE: YES/Care Coordination
INVERSE MEASURE: NO
PROPORTIONAL MEASURE: YES
CONTINUOUS VARIABLE MEASURE: NO
RATIO MEASURE: NO
MEANINGFUL MEASURE AREA: Functional Outcomes
RISK ADJUSTED: NO
TELEHEALTH: YES
OF PERFORMANCE RATES REQ'D: 1
CARE SETTING: AMBULATORY CARE: CLINICIAN OFFICE/CLINIC

DESCRIPTION:

Percentage of patients aged 5 years and older who were evaluated for clinical improvement and efficacy within one year after initiating allergen immunotherapy AND assessment documented in the medical record.

INSTRUCTIONS:

This measure is to be reported **once per reporting period** for patients receiving allergen immunotherapy who initiated allergen immunotherapy one year prior to the date of encounter. On the date of service, the patient should be evaluated for clinical improvement and efficacy. Further, assessment results should be documented in the medical record or there should be written documentation that the patient was evaluated for clinical improvement and efficacy at least once within 12 months of being placed on allergen immunotherapy. There is no diagnosis associated with this measure. This measure is intended to reflect the quality of services provided for patients undergoing allergen immunotherapy. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting via Qualified Clinical Data Registry:

CPT codes, patient demographics and medical record data are used to identify patients who are included in the measure's denominator. Medical record data and the listed numerator options are used to report the numerator of the measure.

DENOMINATOR:

All patients aged 5 years and older who initiated allergen immunotherapy within one year prior to the date of encounter

Denominator Criteria (Eligible cases):

Patients aged 5 years and older on the date of the encounter.

AND

Professional Services for Allergen Immunotherapy (CPT): 95165, 95115, 95117, 95120, 95125, 95130, 95131, 95132, 95133, 95134, 95144, 95145, 95146, 95147, 95148, 95149, 95170, 95180

AND

Patient Encounter during the Reporting Period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

AND

Patients who initiated allergen immunotherapy within one year prior to the date of encounter [AAAAI_6.DEN.1.YES](#)

AND NOT

Patients who discontinued allergen immunotherapy regimen [AAAAI_6.DEN.2.YES](#)

NUMERATOR:

Patients who were evaluated for clinical improvement and efficacy at least once within the first year of treatment with assessment documented in the medical record

Numerator Options:

Performance Met:

The patient was assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment and assessment was documented in medical record
AAAAI_6.NUMER.1.YES

OR

Performance Not Met:

The patient **was not** assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment and/or assessment was **not** documented in medical record
AAAAI_6.NUMER.2.NO

CLINICAL RECOMMENDATIONS, TREATMENT GOALS:

Summary Statement 23: Patients should be evaluated at least every 6 to 12 months while they receive immunotherapy in order to assess efficacy, implement and reinforce its safe administration, monitor adverse reactions, assess the patient's compliance with treatment, determine whether immunotherapy can be discontinued and to determine whether adjustments in the immunotherapy to dosing schedule or allergen content are necessary.¹

¹Cox L, Nelson H, Lockey R, Calabria C, Chacko T, Finegold I, Nelson M, Weber R, Bernstein DI, Blessing-Moore J, Khan DA, Lang DM, Nicklas RA, Oppenheimer J, Portnoy JM, Randolph C, Schuller DE, Spector SL, Tilles S, Wallace D. *J Allergen immunotherapy: a practice parameter third update*. Allergy Clin Immunol. 2011 Jan;127(1 Suppl):S1-55.

The Documentation of Clinical Response to Allergen Immunotherapy within One Year measure was developed by the Joint Task Force on Quality and Performance Measures, a joint task force of the American Academy of Allergy Asthma and Immunology (AAAAI) and American College of Allergy Asthma and Immunology (ACAAI). The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications. The CPT® contained in the measure specification is copyright 2004-2016 American Medical Association.

AAAAI8: Achievement of Projected Effective Dose of Standardized Allergens for Patient Treated With Allergen Immunotherapy for at Least One Year – National Quality Strategy Domain: Effective Clinical Care

MEASURE TYPE: Outcome
HIGH PRIORITY/TYPE: YES, Outcome
INVERSE MEASURE: NO
PROPORTIONAL MEASURE: YES
CONTINUOUS VARIABLE MEASURE: NO
RATIO MEASURE: NO
MEANINGFUL MEASURE AREA: Medication Management
RISK ADJUSTED: NO
TELEHEALTH: NO
OF PERFORMANCE RATES REQ'D: 1
CARE SETTING: AMBULATORY CARE: CLINICIAN OFFICE/CLINIC

DESCRIPTION:

Proportion of patients receiving subcutaneous allergen immunotherapy that contains at least one standardized extract (mite, ragweed, grass, and/or cat) who achieved the projected effective dose for all included standardized allergen extract(s) after at least one year of treatment.

INSTRUCTIONS:

This outcomes measure is to be reported **once per reporting period** when a patient seen during the reporting period receiving subcutaneous allergen immunotherapy for at least one standardized extract achieves the projected effective dose after one year of treatment. This measure is intended to reflect the quality of services provided for patients undergoing allergen immunotherapy. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting via Registry:

CPT codes, patient demographics and medical record data are used to identify patients who are included in the measure's denominator. Medical record data and the listed numerator options are used to report the numerator of the measure.

DENOMINATOR:

All patients aged 5 years and older who received subcutaneous allergen immunotherapy for at least one year containing at least one standardized antigen

Denominator Criteria (Eligible Cases):

Patients aged 5 years and older on the date of the encounter

AND

Professional Services for Allergen Immunotherapy (CPT): 95115, 95117, 95120, 95125, 95144, 95165

AND

Patient Encounter during the Reporting Period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

AND

Patients receiving subcutaneous allergen immunotherapy containing at least one standardized extract (cat, dust mite, grass, bermuda, or short ragweed) for 1 year [AAAAI_8.DEN.1.YES](#)

NUMERATOR:

Patients who achieved the projected effective dose for all standardized extracts included in the prescription

Definitions:

Projected Effective Dose – The allergen dose projected to provide therapeutic efficacy. Not all patients will tolerate the projected effective dose, and some patients experience therapeutic efficacy at lower doses.

Numerator Instructions:

The following doses can be used to determine if the patient achieved the projected effective dose for all standardized extracts included in the prescription:

| | |
|-------------------------|--|
| Cat | 1000 BAU per injection |
| Dust mite (Dp,Df) | 500 AU per injection (or 7mcg Der p 1) |
| Grass (100,000 BAU/ml) | 1000 BAU per injection |
| Bermuda (10,000 BAU/ml) | 300 BAU |
| Short ragweed | 1000 AU or 6mcg Amb a 1 |

Numerator Options:

Performance Met:

Projected effective dose of all applicable standardized extracts was achieved [AAAAI_8.NUMER.1.YES](#)

OR

Medical Performance Exclusion:

Documentation of medical reasons for not achieving the projected effective dose such as local or systemic reactions, interruptions in therapy due to co-morbid conditions (e.g. pregnancy) or patient intolerance to the projected effective dose
[AAAAI_8.NUMER.2.YES](#)

Patient Performance Exclusion:

Documentation of patient reason(s) for not achieving the projected effective dose such as interruptions in therapy due to noncompliance
[AAAAI_8.NUMER.3.YES](#)

Other Performance Exclusion:

Patients who are receiving allergen immunotherapy prescribed and prepared by eligible professional by an outside entity (providing supervision only) [AAAAI_8.NUMER.4.YES](#)

OR

Performance Not Met:

Projected effective dose of all applicable standardized extracts **was not** achieved, reason not otherwise specified
[AAAAI_8.NUMER.5.NO](#)

CLINICAL RECOMMENDATION STATEMENTS:

Summary Statement 80: The efficacy of immunotherapy depends on achieving an optimal therapeutic dose of each of the constituents in the allergen immunotherapy extract.¹

Summary Statement 81: The maintenance concentrate should be formulated to deliver a dose considered to be therapeutically effective for each of its constituent components. The maintenance concentrate vial is the highest concentration allergy immunotherapy vial (eg, 1:1 vol/vol vial). The projected effective dose is called the maintenance goal. Some subjects unable to tolerate the projected effective dose will experience clinical benefits at a lower dose. The maintenance dose is the dose that provides therapeutic efficacy without significant adverse local or systemic reactions and might not always reach the initially calculated projected effective dose. This reinforces that allergy immunotherapy must be individualized.¹

¹Cox L, Nelson H, Lockey R, Calabria C, Chacko T, Finegold I, Nelson M, Weber R, Bernstein DI, Blessing-Moore J, Khan DA, Lang DM, Nicklas RA, Oppenheimer J, Portnoy JM, Randolph C, Schuller DE, Spector SL, Tilles S, Wallace D. J *Allergen immunotherapy: a practice parameter third update*. Allergy Clin Immunol. 2011 Jan;127(1 Suppl):S1-55.

The Achievement of Projected Effective Dose of Standardized Allergens for Patient Treated With Allergen Immunotherapy for at Least One Year measure was developed by the Joint Task Force on Quality and Performance Measures, a joint task force of the American Academy of Allergy Asthma and Immunology (AAAAI) and American College of Allergy Asthma and Immunology (ACAAI). The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications. The CPT® contained in the measure specification is copyright 2004-2016 American Medical Association.

AAAAI18: Penicillin Allergy: Appropriate Removal or Confirmation – National Quality Strategy
Domain: Communication and Care Coordination

MEASURE TYPE: Outcome
HIGH PRIORITY/TYPE: YES, Outcome
INVERSE MEASURE: NO
PROPORTIONAL MEASURE: YES
CONTINUOUS VARIABLE MEASURE: NO
RATIO MEASURE: NO
MEANINGFUL MEASURE AREA: Medication Management
RISK ADJUSTED: NO
TELEHEALTH: YES
OF PERFORMANCE RATES REQ'D: 1
CARE SETTING: AMBULATORY CARE: CLINICIAN OFFICE/CLINIC

DESCRIPTION:

Percentage of patients, regardless of age, with a primary diagnosis of penicillin or ampicillin/amoxicillin allergy, who underwent elective skin testing or antibiotic challenge that resulted in the removal of the penicillin or ampicillin/amoxicillin allergy label from the medical record if negative or confirmation of the penicillin or ampicillin/amoxicillin allergy label if positive.

INSTRUCTIONS:

This outcomes measure is to be reported **once per reporting period** for all patients with a penicillin or ampicillin/amoxicillin allergy label in the medical record who are seen during the reporting period. Patients with a history of penicillin allergy without preceding skin testing, in vitro testing or antibiotic challenge will qualify for the measure denominator. For the purposes of this measure, a “penicillin allergy” will only include natural penicillins or aminopenicillins, ampicillin and amoxicillin. A discussion regarding the risks and benefits of elective skin testing or penicillin challenge should take place with the patient or their caregiver/guardian. If the patient has previously declined skin testing or antibiotic challenge, they can be exempt from the measure numerator. In order to meet the numerator of this measure, skin testing or antibiotic challenge results should be reviewed and documented in the medical record. Further, the penicillin allergy label should be removed if results are negative or confirmed if positive. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific coding.

Measure Reporting via Registry:

ICD-10-CM diagnosis codes, CPT codes, patient demographics, and medical record data are used to identify patients who are included in the measure’s denominator. Medical record data and the listed numerator options are used to report the numerator of the measure.

DENOMINATOR:

All patients, regardless of age, with a diagnosis of primary penicillin or ampicillin/amoxicillin allergy seen during the reporting period

Definition:

Penicillin Allergy – For the purposes of this measure, a “penicillin allergy” will only include a history of allergy to natural penicillins (penicillin G and penicillin V) OR aminopenicillins (ampicillin and amoxicillin).

Denominator Criteria (Eligible Cases):

All patients regardless of age

AND

Adverse effect of penicillins (ICD-10-CM): T36.0X5A, T36.0X5D, T36.0X5S

Allergy status to penicillin (ICD-10-CM): Z88.0

AND

Patient encounter during the reporting period: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245

AND NOT

Diagnosis for Steven-Johnson Syndrome (ICD-10): L51.1

Diagnosis for Serum-Sickness (ICD-10): T80.61XA, T80.61XD, T80.61XS

NUMERATOR:

Patients who underwent elective skin testing or penicillin challenge AND who had the penicillin or ampicillin/amoxicillin allergy label removed from the medical record if results were negative or confirmed in the medical record if results were positive.

NUMERATOR NOTE: A positive result consists of either a positive skin test or positive challenge after a negative skin test.

Numerator Options

Performance Met:

Patient underwent elective skin testing or penicillin challenge AND had the penicillin or ampicillin/amoxicillin allergy label removed from the medical record if results were negative or confirmed in the medical record if results were positive [AAAAI_18.NUMER.1.YES](#)

OR

Medical Performance Exclusion:

Medical reason(s) for not documenting and reviewing (eg, previous positive penicillin skin test, patients with severe anaphylaxis to penicillin within the past 5 years, patients with penicillin reaction histories consistent with severe non-IgE-mediated reactions, significant comorbid disease and patients unable to discontinue medications with antihistaminic effects or beta-blockers) [AAAAI_18.NUMER.2.YES](#)

OR

Patient Performance Exclusion:

Patient reason(s) for not documenting and reviewing results (eg, patients who decline or are non-adherent with skin testing/challenge recommendations) [AAAAI_18.NUMER.3.YES](#)

OR

Performance Not Met:

Patient did **NOT** undergo elective skin testing/penicillin challenge and did not have the penicillin or ampicillin/amoxicillin allergy label removed or confirmed on the medical record, reason not otherwise specified [AAAAI_18.NUMER.4.NO](#)

RATIONALE:

Most patients with a diagnosis of penicillin allergy are not allergic to penicillin. The avoidance of penicillin and related beta-lactam antibiotics may result in use of antibiotics that are less effective, more costly or more toxic. Additionally, rapid penicillin desensitization may be pursued unnecessarily, which also results in higher costs.

In regards to exclusions, testing for penicillin requires the ability to test without concomitant use of a medicine with antihistaminic effects. Severe non-IgE-mediated penicillin reactions cannot be diagnosed via penicillin skin testing. Patients with significant comorbid diseases may be at higher risk of reaction due to skin testing and challenge. Also, should the patient be on a beta-blocker and unable to withhold before challenge this could be exclusion.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

Summary Statement 54: The most useful test for detecting IgE-mediated drug reactions caused by penicillin and many large-molecular-weight biologicals is immediate hypersensitivity skin testing. (B)

Summary Statement 71: Approximately 10% of patients report a history of penicillin allergy, but after complete evaluation, up to 90% of these individuals are able to tolerate penicillins. (B)

Summary Statement 72: Treatment of patients assumed to be penicillin allergic with alternate broad-spectrum antibiotics may compromise optimal medical care by leading to multiple drug-resistant organisms, higher costs, and increased toxic effects. (C)

Summary Statement 73: Evaluation of patients with penicillin allergy by skin testing leads to reduction in the use of broad-spectrum antibiotics and may decrease costs. (B)

Joint Task Force on Practice Parameters; American Academy of Allergy, Asthma and Immunology; American College of Allergy, Asthma and Immunology; Joint Council of Allergy, Asthma and Immunology: Drug allergy: an updated practice parameter. *Ann Allergy Asthma Immunol* 2010,105:259–273.

The Penicillin Allergy: Appropriate Removal or Confirmation measure was developed by the American Academy of Allergy Asthma and Immunology (AAAAI). The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications. The CPT® contained in the measure specification is copyright 2004-2016 American Medical Association.

MIPS #331: Adult Sinusitis: Antibiotic Prescribed for Acute Sinusitis (Overuse) – National Quality Strategy Domain: Efficiency and Cost Reduction

MEASURE TYPE: Process (high priority measure)

DESCRIPTION:

Percentage of patients, aged 18 years and older, with a diagnosis of acute sinusitis who were prescribed an antibiotic within 10 days after onset of symptoms

INSTRUCTIONS:

This measure may be reported based on the actions of the reporting eligible clinician who performs the quality action, described in the measure, based on services provided within measure-specific denominator coding. This measure is to be reported once for **each occurrence** for patients with acute sinusitis during the performance period.

Measure Reporting:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older with a diagnosis of acute sinusitis

Definitions:

Acute Sinusitis/Rhinosinusitis - Up to 4 weeks of purulent nasal drainage (anterior, posterior, or both) accompanied by nasal obstruction, facial pain-pressure-fullness, or both:

- Purulent nasal discharge is cloudy or colored, in contrast to the clear secretions that typically accompany viral upper respiratory infection, and may be reported by the patient or observed on physical examination. Nasal obstruction may be reported by the patient as nasal obstruction, congestion, blockage, or stuffiness, or may be diagnosed by physical examination
- Facial pain-pressure-fullness may involve the anterior face, periorbital region, or manifest with headache that is localized or diffuse

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years on date of encounter

AND

Diagnosis for acute sinusitis (ICD-10-CM): J01.00, J01.01, J01.10, J01.11, J01.20, J01.21, J01.30, J01.31, J01.40, J01.41, J01.80, J01.90

AND

Patient encounter during reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR:

Patients prescribed any antibiotic within 10 days after onset of symptoms

Numerator Instructions:

INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or

control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

Numerator Options:

Performance Met: Antibiotic regimen prescribed within 10 days after onset of symptoms (G9286)

OR

Other Performance Exclusion: Antibiotic regimen prescribed within 10 days after onset of symptoms for documented medical reason (G9505)

OR

Performance Not Met: Antibiotic regimen **not** prescribed within 10 after onset of symptoms (G9287)

RATIONALE:

Antibiotic treatment for sinusitis is indicated for some patients, but overtreatment of acute sinusitis with antibiotics is common and often not indicated. Further, treatment with antibiotics may increase patient harm and can lead to antibiotic resistance.

A 2012 Cochrane systematic review was undertaken to assess the effect of antibiotics in adults with clinically diagnosed rhinosinusitis in primary care settings. Acute rhinosinusitis is a common condition that involves blockage of the nose passage and mucus in the sinuses. It is often caused by a viral upper respiratory tract infection of which only 0.5% to 2% of cases are estimated to be complicated by a bacterial rhinosinusitis. Nevertheless, antibiotics (used to treat bacterial infections) are often prescribed. Unnecessary prescribing contributes to antimicrobial resistance in the community. The authors concluded that given the lack of clear benefit in terms of rapid recovery and the increase in side effects in participants treated with antibiotics, antibiotics are not recommended as first line treatment in adults with clinically diagnosed acute rhinosinusitis.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines: AAO-HNS Sinusitis Guideline (2015)

Clinicians should distinguish presumed acute bacterial rhinosinusitis (ABRS) from acute rhinosinusitis caused by viral upper respiratory infections and non-infectious conditions. A clinician should diagnose ABRS when (a) symptoms or signs of acute rhinosinusitis (purulent nasal drainage accompanied by nasal obstruction, facial pain-pressure-fullness, or both) persist without evidence of improvement for at least 10 days beyond the onset of upper respiratory symptoms, or (b) symptoms or signs of acute rhinosinusitis worsen within 10 days after an initial improvement (double worsening).

Strong recommendation based on diagnostic studies with minor limitations and a preponderance of benefit over harm.

The purpose of this statement is to emphasize the importance of differentiating acute bacterial rhinosinusitis (ABRS) from acute rhinosinusitis (ARS) caused by viral upper respiratory infections to prevent unnecessary treatment with antibiotics. Distinguishing presumed bacterial vs. viral infection is important because antibiotic therapy is inappropriate for the latter.

A quality improvement opportunity addressed by this guideline key action statement is the avoidance of inappropriate use of antibiotics for presumed viral infections. More than one in five antibiotics prescribed in adults are for sinusitis, making it the fifth most common diagnosis responsible for antibiotic therapy.

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MIPS #332: Adult Sinusitis: Appropriate Choice of Antibiotic: Amoxicillin With or Without Clavulanate Prescribed for Patients with Acute Bacterial Sinusitis (Appropriate Use) – National Quality Strategy Domain: Efficiency and Cost Reduction

MEASURE TYPE: process (high priority measure)

DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of acute bacterial sinusitis that were prescribed amoxicillin, with or without clavulanate, as a first line antibiotic at the time of diagnosis

INSTRUCTIONS:

This measure may be reported based on the actions of the reporting eligible clinician who performs the quality action, described in the measure, based on services provided within measure-specific denominator coding. This measure is to be reported a minimum of **once per performance period** for patients with acute bacterial sinusitis during the performance period.

Measure Reporting:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older with a diagnosis of acute bacterial sinusitis who are prescribed an antibiotic.

Definitions:

Acute Bacterial Rhinosinusitis (ABRS) - Acute rhinosinusitis that is caused by, or is presumed to be caused by, bacterial infection. A clinician should diagnose ABRS when: (a) symptoms or signs of acute rhinosinusitis are present 10 days or more beyond the onset of upper respiratory symptoms, or (b) symptoms or signs of acute rhinosinusitis worsen within 10 days after an initial improvement (double worsening)

Denominator Criteria (Eligible Cases):

Patients aged \geq 18 years on date of encounter

AND

Diagnosis for acute sinusitis (ICD-10-CM): J01.00, J01.01, J01.10, J01.11, J01.20, J01.21, J01.30, J01.31, J01.40, J01.41, J01.80, J01.90

AND

Patient encounter during reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Sinusitis caused by, or presumed to be caused by, bacterial infection: G9364

AND

Antibiotic regimen prescribed: G9498

NUMERATOR:

Patients who were prescribed amoxicillin, with or without clavulanate, as a first line antibiotic at the time of diagnosis

Numerator Options:

Performance Met:

Amoxicillin, with or without clavulanate, prescribed as a first line antibiotic at the time of diagnosis (**G9315**)

OR

Other Performance Exclusion:

Amoxicillin, with or without clavulanate, not prescribed as first line antibiotic at the time of diagnosis for documented reason (**G9313**)

OR

Performance Not Met:

Amoxicillin, with or without clavulanate, **not** prescribed as first line antibiotic at the time of diagnosis, reason not given (**G9314**)

RATIONALE:

The rationale for antibiotic therapy of ABRS is to eradicate bacterial infection from the sinuses, hasten resolution of symptoms, and enhance disease-specific quality of life. Antibiotic therapy should be efficacious, cost-effective, and result in minimal side effects.

The justification for amoxicillin as first-line therapy for most patients with ABRS relates to its safety, efficacy, low cost, and narrow microbiologic spectrum. Consideration to prescribing amoxicillin-clavulanate for adults with ABRS is given to those at a high risk of being infected by an organism resistant to amoxicillin. Factors that would prompt clinicians to consider prescribing amoxicillin-clavulanate instead of amoxicillin include:

- Situations in which bacterial resistance is likely (e.g. antibiotic use in the past month; close contact with treated individuals, health care providers, or a health care environment; failure of prior antibiotic therapy; breakthrough infection despite prophylaxis; close contact with a child in a daycare facility; smoker or smoker in the family; high prevalence of resistant bacteria in community)
- Presence of moderate to severe infection (e.g. moderate to severe symptoms of ABRS; protracted symptoms of ABRS; frontal or sphenoidal sinusitis, history of recurrent ABRS)
- Presence of comorbidity or extremes of life (e.g. comorbid conditions including diabetes; chronic cardiac, hepatic, or renal disease; immunocompromised patient; age greater than 65 years)

The use of high-dose amoxicillin with clavulanate is recommended for adults with ABRS who are at a high risk of being infected with an amoxicillin-resistant organism. High-dose amoxicillin is preferred over standard-dose amoxicillin primarily to cover penicillin non susceptible (PNS) *S. pneumoniae*. This risk exists in those from geographic regions with high endemic rates (>10%) of invasive PNS *S. pneumoniae*, those with severe infection (e.g., evidence of systemic toxicity with fever of 39C (102F) or higher, and threat of supportive complications), age >65 years, recent hospitalization, antibiotic use within the past month, or those who are immunocompromised.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

AAO-HNS Sinusitis Guideline (2015)

If a decision is made to treat ABRS with an antibiotic agent, the clinician should prescribe amoxicillin with or without clavulanate as first-line therapy for most adults.

Recommendation based on randomized controlled trials with heterogeneity and non-inferiority design with a preponderance of benefit over harm.

The purpose of this statement is to promote prescribing of antibiotics with known efficacy and safety for ABRS and to reduce prescribing of antibiotics with potentially inferior efficacy because of more limited coverage of the usual pathogens that cause ABRS in adults. A secondary goal is to promote cost-effective antibiotic therapy for ABRS. A quality improvement opportunity addressed by this guideline key action statement is discouraging initial prescribing of antibiotics other than amoxicillin, with or without clavulanate, that may have low efficacy or have comparable efficacy but more adverse events.

IDSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults (2012)

Amoxicillin-clavulanate rather than amoxicillin alone is recommended as empiric antimicrobial therapy for ABRS in adults (weak, low).

Evidence for at least 1 critical outcome from observational studies, from RCTs with serious flaws or indirect evidence.

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MIPS #65 (NQF 0069, e-CQM CMS 154v6): Appropriate Treatment for Children with Upper Respiratory Infection (URI) – National Quality Strategy Domain: Efficiency and Cost Reduction

MEASURE TYPE: Process (high priority measure)

DESCRIPTION:

Percentage of children 3 months - 18 years of age who were diagnosed with upper respiratory infection (URI) and were not dispensed an antibiotic prescription on or three days after the episode

INSTRUCTIONS:

This measure is to be reported once for **each occurrence** of upper respiratory infection during the performance period. Claims data will be analyzed to determine unique occurrences. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

Children 3 months through 18 years of age who had an outpatient or emergency department (ED) visit with only a diagnosis of upper respiratory infection (URI) during the measurement period

Denominator Instructions: To determine eligibility, look for any of the listed antibiotic drugs below in the 30 days prior to the visit with the URI diagnosis. As long as there are no prescriptions for the listed antibiotics during this time period, the patient is eligible for denominator inclusion.

Denominator Criteria (Eligible Cases):

Patients aged 3 months through 18 years on date of encounter

AND

Diagnosis for URI (ICD-10-CM): J00, J06.0, J06.9

AND

Patient encounter during the reporting period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99217, 99218, 99219, 99220, 99281, 99282, 99283, 99284, 99285, G0402

DENOMINATOR EXCLUSIONS:

Patient prescribed or dispensed antibiotic for documented medical reason(s) (e.g., intestinal infection, pertussis, bacterial infection, Lyme disease, otitis media, acute sinusitis, acute pharyngitis, acute tonsillitis, chronic sinusitis, infection of the pharynx/larynx/tonsils/adenoids, prostatitis, cellulitis, mastoiditis, or bone infections, acute lymphadenitis, impetigo, skin staph infections, pneumonia/gonococcal infections, venereal disease (syphilis, chlamydia, inflammatory diseases [female reproductive organs]), infections of the kidney, cystitis or UTI, and acne: G8709

OR

Children who are taking antibiotics in the 30 days prior to the date of the encounter during which the diagnosis was established: G9701

OR

Patients who use hospice services any time during the measurement period: G9700

NUMERATOR:

Children without a prescription for antibiotic medication on or 3 days after the outpatient or ED visit for an upper respiratory infection.

Numerator Instructions: For performance, the measure will be calculated as the number of patient's encounter(s) where antibiotics were neither prescribed nor dispensed on or within three days of the episode for URI over the total number of encounters in the denominator (patients aged 3 months through 18 years with an outpatient or ED visit for URI. A higher score indicates appropriate treatment of patients with URI (e.g., the proportion for whom antibiotics were not prescribed or dispensed following the episode).

Table 1 - Antibiotic Medications

| Description | Prescription |
|-------------------------------------|---|
| Aminopenicillins | <ul style="list-style-type: none"> • Amoxicillin • Ampicillin |
| Beta-lactamase inhibitors | <ul style="list-style-type: none"> • Amoxicillin-clavulanate |
| First generation cephalosporins | <ul style="list-style-type: none"> • Cefadroxi • Cephalexin • Cefazolin |
| Folate antagonist | <ul style="list-style-type: none"> • Trimethoprim |
| Lincomycin derivatives | <ul style="list-style-type: none"> • Clindamycin |
| Macrolides | <ul style="list-style-type: none"> • Azithromycin • Erythromycin ethylsuccinate • Clarithromycin • Erythromycin lactobionate • Erythromycin • Erythromycin stearate |
| Miscellaneous antibiotics | <ul style="list-style-type: none"> • Erythromycin-sulfisoxazole |
| Natural penicillins | <ul style="list-style-type: none"> • Penicillin G potassium • Penicillin V potassium • Penicillin G sodium |
| Penicillinase-resistant penicillins | <ul style="list-style-type: none"> • Dicloxacillin |
| Quinolones | <ul style="list-style-type: none"> • Ciprofloxacin • Moxifloxacin • Levofloxacin • Ofloxacin |
| Second generation cephalosporins | <ul style="list-style-type: none"> • Cefaclor • Cefuroxime • Cefprozil |
| Sulfonamides | <ul style="list-style-type: none"> • Sulfamethoxazole-trimethoprim |
| Tetracyclines | <ul style="list-style-type: none"> • Doxycycline • Tetracycline • Minocycline |
| Third generation cephalosporins | <ul style="list-style-type: none"> • Cefdinir • Ceftibuten • Cefixime • Cefditoren • Cefpodoxime • Ceftriaxone |

Numerator Options:

Performance Met:

Patient not prescribed or dispensed antibiotic (**G8708**)

OR

Performance Not Met:

Patient prescribed or dispensed antibiotic (**G8710**)

RATIONALE:

Most upper respiratory infections (URI), also known as the common cold, are caused by viruses that require no antibiotic treatment. Too often, antibiotics are prescribed inappropriately, which can lead to antibiotic resistance (when antibiotics can no longer cure bacterial infections). Pediatric ambulatory visits to physicians account for nearly 50 million antibiotic prescriptions annually in the U.S. The total economic impact of treating URIs is close to \$17 billion per year in direct costs.

CLINICAL RECOMMENDATION STATEMENTS:

American Family Physician (Wong, Blumberg, and Lowe 2006)

- A diagnosis of acute bacterial rhinosinusitis should be considered in patients with symptoms of a viral upper respiratory infection that have not improved after 10 days or that worsen after five to seven days. (C)
- Treatment of sinus infection with antibiotics in the first week of symptoms is not recommended. (C)
- Telling patients not to fill an antibiotic prescription unless symptoms worsen or fail to improve after several days can reduce the inappropriate use of antibiotics. (B)

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MIPS #66 (NQF 0002, e-CQM CMS 146v6): Appropriate Testing for Children with Pharyngitis – National Quality Strategy Domain: Efficiency and Cost Reduction

MEASURE TYPE: Process (high priority measure)

DESCRIPTION:

Percentage of children 3-18 years of age who were diagnosed with pharyngitis, ordered an antibiotic and received a group A streptococcus (strep) test for the episode

INSTRUCTIONS:

This measure is to be reported once for **each occurrence** of pharyngitis during the performance period. Claims data will be analyzed to determine unique occurrences. This measure is intended to reflect the quality of services provided for the primary management of patients with pharyngitis who were dispensed an antibiotic. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

Children 3 through 18 years of age who had an outpatient or emergency department (ED) visit with a diagnosis of pharyngitis during the measurement period and an antibiotic ordered on or three days after the visit

Denominator Instructions: To determine eligibility, look for any of the listed antibiotic drugs below in the 30 days prior to the visit with the pharyngitis diagnosis. As long as there are no prescriptions for the listed antibiotics during this time period, the patient is eligible for denominator inclusion.

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.

Denominator Criteria (Eligible Cases):

Patients aged 3 through 18 years on date of encounter

AND

Diagnosis for pharyngitis (ICD-10-CM): J02.0, J02.8, J02.9, J03.00, J03.01, J03.80, J03.81, J03.90, J03.91

AND

Patient encounter during the reporting period (CPT or HCPCS): 96160, 96161, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99217, 99218, 99219, 99220, 99241*, 99242*, 99243*, 99244*, 99245*, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, 99455, 99456, 99281, 99282, 99283, 99284, 99285, G0402

AND

Prescribed or dispensed antibiotic: G8711

AND NOT

DENOMINATOR EXCLUSIONS:

Patients who use hospice services any time during the measurement period: G9702

OR

Children who are taking antibiotics in the 30 days prior to the diagnosis of pharyngitis: G9703

Table 1 - Antibiotic Medications

| Description | Prescription |
|-------------------------------------|---|
| Aminopenicillins | Amoxicillin Ampicillin |
| Beta-lactamase inhibitors | Ampicillin clavulanate |
| First generation cephalosporins | Cefadroxil Cephalexin Cefazolin |
| Folate antagonist | Trimethoprim |
| Lincomycin derivatives | Clindamycin |
| Macrolides | Azithromycin Erythromycin ethylsuccinate Clarithromycin Erythromycin lactobionate Erythromycin Erythromycin stearate |
| Miscellaneous antibiotics | Erythromycin-sulfisoxazole |
| Natural penicillins | Penicillin G potassium Penicillin V potassium Penicillin G sodium |
| Penicillinase-resistant penicillins | Dicloxacillin |
| Quinolones | Ciprofloxacin Moxifloxacin Levofloxacin Ofloxacin |
| Second generation cephalosporins | Cefaclor Cefuroxime Cefprozil |
| Sulfonamides | Sulfamethoxazole-trimethoprim |
| Tetracyclines | Doxycycline Tetracycline Minocycline |
| Third generation cephalosporins | Cefdinir Ceftibuten Cefixime Cefditoren Cefpodoxime Ceftriaxone |

NUMERATOR:

Children with a group A streptococcus test in the 7-day period from 3 days prior through 3 days after the pharyngitis

Numerator Instructions: For performance, the measure will be calculated as the number of patient encounters where diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode over the total number of encounters in the denominator (patients aged 3 through 18 years with an outpatient or ED visit and an antibiotic ordered on or three days after the visit). A higher score indicates appropriate treatment of children with pharyngitis (e.g., the proportion for whom antibiotics were prescribed with an accompanying step test).

Numerator Options:

Performance Met:

Group A Strep Test Performed (3210F)

OR

Performance Not Met:

Group A Strep Test not Performed, reason not otherwise specified (3210F with 8P)

RATIONALE:

Group A streptococcal bacterial infections and other infections that cause pharyngitis (which are most often viral) often produce the same signs and symptoms (IDSA 2002). The American Academy of Pediatrics, the Centers for Disease Control and

Prevention, and the Infectious Diseases Society of America all recommend a diagnostic test for Strep A to improve diagnostic accuracy and avoid unnecessary antibiotic treatment (Linder et al. 2005).

Estimated economic costs of pediatric streptococcal pharyngitis in the United States range from \$224 million to \$539 million per year, including indirect costs related to parental work losses. At a higher level, the economic cost of antibiotic resistance vary but have extended as high as \$20 billion in excess direct healthcare costs, with additional costs to society for lost productivity as high as \$35 billion a year (2008 dollars) (Roberts et al. 2009).

CLINICAL RECOMMENDATION STATEMENTS:

Infectious Disease Society of America (2012)

The Infectious Diseases Society of America (IDSA) “recommends swabbing the throat and testing for GAS pharyngitis by rapid antigen detection test (RADT) and/or culture because the clinical features alone do not reliably discriminate between GAS and viral pharyngitis except when overt viral features like rhinorrhea, cough, oral ulcers, and/or hoarseness are present”

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MIPS #110 (NQF 0041, e-CQM CMS 147v7): Preventive Care and Screening: Influenza Immunization – National Quality Strategy Domain: Community/Population Health

MEASURE TYPE: Process

DESCRIPTION:

Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

INSTRUCTIONS:

This measure is to be submitted a minimum of **once for visits for patients seen** between January and March for the 2020-2021 influenza season AND a minimum of **once for visits for patients seen** between October and December for the 2021-2022 influenza season. This measure is intended to determine whether or not all patients aged 6 months and older received (either from the submitting Merit-based Incentive Payment System (MIPS) eligible clinician or from an alternate care provider) the influenza immunization during the flu season. There is no diagnosis associated with this measure. This measure may be submitted by MIPS eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

- If submitting this measure between January 1, 2021 and March 31, 2021, quality-data code **G8482** should be submitted when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2020 or January, February, and March of 2021 for the flu season ending March 31, 2021.
- If submitting this measure between October 1, 2021 and December 31, 2021, quality-data code **G8482** should be submitted when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2020 for the flu season ending March 31, 2022.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2020-2021 flu season OR 2021-2022 flu season) can be submitted when a visit occurs during the flu season (October 1 - March 31). In these cases, **G8482** should be submitted.

Measure Submission:

Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:

All patients aged 6 months and older seen for a visit during the measurement period

DENOMINATOR NOTE: For the purposes of the program, in order to submit on the flu season 2020-2021, the patient must have a qualifying encounter between January 1 and March 31, 2021. In order to submit on the flu season 2021-2022, the patient must have a qualifying encounter between October 1 and December 31, 2021. A qualifying encounter needs to occur within the flu season that is being submitted; any additional encounter(s) may occur at any time within the measurement period.

*Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases):

Patients aged \geq 6 months

AND

Patient encounter during January thru March and/or October thru December (CPT or HCPCS): 90945, 90947, 90951, 90952, 90953, 90954, 90955, 90956, 90957, 90958, 90959, 90960, 90961, 90962, 90963, 90964, 90965, 90966, 90967, 90968, 90969, 90970, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241*, 99242*, 99243*, 99244*, 99245*, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99381*, 99382*, 99383*, 99384*, 99385*, 99386*, 99387*, 99391*, 99392*, 99393*, 99394*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, 99512*, G0438, G0439

WITHOUT:

Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR:

Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Definition:

Previous Receipt – Receipt of the current season's influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

Numerator Instructions:

The numerator for this measure can be met by submitting either administration of an influenza vaccination or that the patient reported previous receipt of the current season's influenza immunization. If the performance of the numerator is not met, a MIPS eligible clinician can submit a valid denominator exception for having not administered an influenza vaccination. For MIPS eligible clinicians submitting a denominator exception for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Due to the changing nature of the CDC/ACIP recommendations regarding the live attenuated influenza vaccine (LAIV) for a particular flu season, this measure will not include the administration of this specific formulation of the flu vaccination. Given the variance of the timeframes for the annual update cycles, program implementation, and publication of revised recommendations from the CDC/ACIP, it has been determined that the coding for this measure will specifically exclude this formulation, so as not to inappropriately include this form of the vaccine for flu seasons when CDC/ACIP explicitly advise against it. However, it is recommended that all eligible professionals or eligible clinicians review the guidelines for each flu season to determine appropriateness of the LAIV and other formulations of the flu vaccine. Should the LAIV be recommended for administration for a particular flu season, an eligible professional or clinician may consider one of the following options: 1) satisfy the numerator by reporting previous receipt, 2) report a denominator exception, either as a patient reason (e.g., for patient preference) or a system reason (e.g., the institution only carries LAIV).

NUMERATOR NOTE: Denominator Exception(s) are determined at the time of the denominator eligible encounter during the current flu season.

Numerator Quality-Data Coding Option:

Performance Met: Influenza immunization administered or previously received (**G8482**)

OR

Denominator Exceptions: Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (**G8483**)

OR

Performance Not Met:

Influenza immunization as not administered, reason not given
(G8484)

RATIONALE:

Influenza vaccination is the most effective protection against influenza virus infection (Centers for Disease Control and Prevention [CDC], 2018). Influenza may lead to serious complications including hospitalization or death (CDC, 2018). Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination. However, data indicate that less than half of all eligible individuals receive an influenza vaccination (CDC, 2015). This measure promotes annual influenza vaccination for all persons aged ≥ 6 months.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged ≥ 6 months who do not have contraindications. Optimally, vaccination should occur before onset of influenza activity in the community. Although vaccination by the end of October is recommended, vaccine administered in December or later, even if influenza activity has already begun, is likely to be beneficial in the majority of influenza seasons (CDC/Advisory Committee on Immunization Practices [ACIP], 2018).

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**MIPS #111 (NQF 0043, e-CQM CMS 127v6): Pneumococcal Vaccination Status for Older Adults –
National Quality Strategy Domain: Community/Population Health**

MEASURE TYPE: Process

DESCRIPTION:

Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine

INSTRUCTIONS:

This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. Performance for this measure is not limited to the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on services provided and the measure-specific denominator coding.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

Patients 65 years of age and older with a visit during the measurement period

DENOMINATOR NOTE: *This measure assesses whether patients 65 years of age or older have received one or more pneumococcal vaccinations.*

Denominator Criteria (Eligible Cases):

Patients aged ≥ 65 years on date of encounter

AND

Patient encounter during the performance period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439

AND NOT

DENOMINATOR EXCLUSION:

Patient received hospice services any time during the measurement period: G9707

NUMERATOR:

Patients who have **ever** received a pneumococcal vaccination

NUMERATOR NOTE: *While the measure provides credit for adults 65 years of age and older who have ever received either the PCV13 or PPSV23 vaccine (or both), according to ACIP recommendations, patients should receive both vaccines. The order and timing of the vaccinations depends on certain patient characteristics, and are described in more detail in the ACIP recommendations.*

Numerator Quality-Data Coding Options:

OR

Performance Met:

Pneumococcal vaccine administered or previously received (**4040F**)

Performance Not Met:

Pneumococcal vaccine was **not** administered or previously received, reason not otherwise specified (**4040F with 8P**)

RATIONALE:

Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease (NHLBI, 2011). In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease (IPD) (CDC, 2003). Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are

estimated to total \$3.7 billion and \$1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine, (PPV23) and indirect benefits afforded by PCV7 vaccination of young children (Weycker, et al., 2011).

Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66) (Vila-Corcoles, et al., 2009).

CLINICAL RECOMMENDATION STATEMENTS:

In 2014, the Advisory Committee on Immunization Practices (ACIP) began recommending a dose of 13-valent pneumococcal conjugate vaccine (PCV13) be followed by a dose of 23-valent pneumococcal polysaccharide vaccine (PPSV23) 6-12 months later in adults aged 65 and older who have not previously received a pneumococcal vaccination, and in persons over the age of two years who are considered to be at higher risk for pneumococcal disease due to an underlying condition. The two vaccines should not be coadministered and intervals for administration of the two vaccines vary slightly depending on the age, risk group, and history of vaccination (Kobayashi, 2015).

In 2015, ACIP updated its recommendation and changed the interval between PCV13 and PPSV23, from 6-12 months to at least one year for immunocompetent adults aged ≥ 65 years who have not previously received pneumococcal vaccine. For immunocompromised vaccine-naïve adults, the minimum acceptable interval between PCV13 and PPSV23 is 8 weeks. Both immunocompetent and immunocompromised adults aged ≥ 65 years who have previously received a dose of PPSV23 when over the age of 65 should receive a dose of PCV13 at least one year after PPSV23 (≥ 1 year). Immunocompetent and immunocompromised adults aged ≥ 65 who have previously received a dose of PPSV23 when under the age of 65, should also receive a dose of PCV13 at least one year after PPSV23 (≥ 1 year) and then another dose of PPSV23 at least one year after PCV13. It is recommended that for those that have this alternative three-dose schedule (2 PPSV23 and 1 PCV13), the three doses should be spread over a time period of five or more years (Kobayashi, 2015).

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The National Committee for Quality Assurance owned and developed Pneumonia Vaccination Status for Older Adults measure specifications are copied and found in the CMS Quality Payment Program website at <https://qpp.cms.gov/about/resource-library> and eCQM version at <https://ecqi.healthit.gov/ecqm/measures/cms127v6>

MIPS #128 (NQF 0421, e-CQM CMS 69v6): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan – National Quality Strategy Domain: Community/Population Health

MEASURE TYPE: Process

DESCRIPTION:

Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous twelve months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter

Normal Parameters:

Age 18 years and older BMI ≥ 18.5 and < 25 kg/m²

INSTRUCTIONS:

There is no diagnosis associated with this measure. This measure is to be reported a minimum of **once per performance period** for patients seen during the performance period. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided at the time of the qualifying visit and the measure-specific denominator coding. The BMI may be documented in the medical record of the provider or in outside medical records obtained by the provider. If the most recent documented BMI is outside of normal parameters, then a follow-up plan must be documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent document MI outside of normal parameters, example: "Patient referred to nutrition counseling for BMI above or below normal parameters" (See Definitions for examples of follow-up plan treatments). *If more than one BMI is reported during the measure period, the most recent BMI will be used to determine if the performance has been met.*

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older on the date of the encounter with at least one eligible encounter during the measurement period

DENOMINATOR NOTE: **Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.*

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years on date of encounter

AND

Patient encounter during the performance period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 96150, 96151, 96152, 97161, 97162, 97163, 97165, 97166, 97167, 97802, 97803, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, D7140, D7210, G0101, G0108, G0270, G0271, G0402, G0438, G0439, G0447

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND NOT

DENOMINATOR EXCLUSIONS:

BMI not documented, documentation the patient is not eligible for BMI calculation: G8422

OR

BMI is documented as being outside of normal limits, follow-up plan is not documented, documentation the patient is not eligible: G8938

NUMERATOR:

Patients with a documented BMI during the encounter or during the previous twelve months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter.

Numerator Instructions:

- Height and Weight - An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within twelve months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- Follow-Up Plan – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI, outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above or below normal parameters”. (See Definitions for examples of follow-up plan treatments).
- Performance Met for G8417 & G8418
 - If the provider documents a BMI and a follow-up plan at the current visit **OR**
 - If the patient has a documented BMI within the previous twelve months of the current encounter, the provider documents a follow-up plan at the current visit **OR**
 - If the patient has a documented BMI within the previous twelve months of the current encounter **AND** the patient has a documented follow-up plan for a BMI outside normal parameters within the previous twelve months of the current visit

Definitions:

BMI – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:

$$\text{Metric Units: BMI} = \text{Weight (kg)} / (\text{Height (m)} \times \text{Height (m)})$$

OR

$$\text{English Units: BMI} = \text{Weight (lbs)} / (\text{Height (in)} \times \text{Height (in)}) \times 703$$

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include, but is not limited to:

- Documentation of education
- Referral (for example a registered dietitian, nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
- Exercise counseling
- Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan (Denominator Exclusion) – A patient is not eligible if one or more of the following reasons are documented:

- Patients receiving palliative care on the date of the current encounter or any time prior to the current encounter
- Patients who are pregnant any time during the measurement year
- Patients who refuse measurement of height and/or weight or refuse follow-up any time during the measurement period (Jan 1, 2020 – Dec 31, 2020).

Patients with a documented BMI outside normal limits and a documented reason for not completing BMI follow-up plan during the current encounter or within the previous 12 months of the current encounter (Denominator Exception) –

- The Medical Reason exception could include, but is not limited to, the following patients as deemed appropriate by the health care provider

- Elderly Patients (65 or older) for whom weight reduction/weight gain would complicate other underlying health conditions such as the following examples:
 - Illness or physical disability
 - Mental illness, dementia, confusion
 - Nutritional deficiency, such as Vitamin/mineral deficiency
- Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient's health status.

Numerator Quality-Data Coding Options:

Performance Met:

BMI is documented within normal parameters and no follow-up plan is required (**G8420**)

OR

Performance Met:

BMI is documented above normal parameters and a follow-up plan is documented (**G8417**)

OR

Performance Met:

BMI is documented below normal parameters and a follow-up plan is documented (**G8418**)

OR

Denominator Exception:

BMI is documented as being outside of normal limits, follow-up plan is not completed for documented reason (**G9716**)

OR

Performance Not Met:

BMI not documented and no reason is given (**G8421**)

OR

Performance Not Met:

BMI documented outside normal parameters, no follow-up plan documented, no reason given (**G8419**)

RATIONALE:

BMI Above Normal Parameters

Obesity is a chronic, multifactorial disease with complex psychological, environmental (social and cultural), genetic, physiologic, metabolic and behavioral causes and consequences. The prevalence of overweight and obese people is increasing worldwide at an alarming rate in both developing and developed countries. Environmental and behavioral changes brought about by economic development, modernization and urbanization have been linked to the rise in global obesity. The health consequences are becoming apparent (ICSI 2013. p.6).

Nationally, nearly 38 percent of adults are obese [NHANES, 2013-2014 data]. Nearly 8 percent of adults are extremely obese (BMI greater than or equal to 40.0); Obesity rates are higher among women (40.4 percent) compared to men (35.0 percent). Between 2005 and 2014, the difference in obesity among women was 5.1 percent higher among women and 1.7 percent higher among men. Women are also almost twice as likely (9.9 percent) to be extremely obese compared to men (5.5 percent); In addition, rates are the highest among middle-age adults (41 percent for 40- to 59-year-olds), compared to 34.3 percent of 20 to 39-year-olds and 38.5 percent of adults ages 60 and older (Flegal KM, Kruszon-Moran D, Carroll MD, et al, 2016, p.2286-2290).

Obesity is one of the biggest drivers of preventable chronic diseases and healthcare costs in the United States. Currently, estimates for these costs range from \$147 billion to nearly \$210 billion per year (Cawley J and Meyerhoefer C., 2012 & Finkelstein, Trogon, Cohen, et al., 2009). There are significant racial and ethnic inequities [NHANES, 2013-2014 data]: Obesity rates are higher among Blacks (48.4 percent) and Latinos (42.6 percent) than among Whites (36.4 percent) and Asian Americans (12.6 percent).The inequities are highest among women: Blacks have a rate of 57.2 percent, Latinos of 46.9 percent, Whites of 38.2 percent and Asians of 12.4 percent. For men, Latinos have a rate of 37.9 percent, Blacks of 38.0 percent and Whites of 34.7 percent. Black women (16.8 percent) are twice as likely to be extremely obese as White women (9.7 percent) (Flegal KM, Kruszon-Moran D, Carroll MD, et al., 2016, pp. 2284-2291).

BMI continues to be a common and reasonably reliable measurement to identify overweight and obese adults who may be at an increased risk for future morbidity. Although good quality evidence supports obtaining a BMI, it is important to recognize it is not a perfect measurement. BMI is not a direct measure of adiposity and as a consequence it can over- or underestimate adiposity. BMI is a derived value that correlates well with total body fat and markers of secondary complications, e.g., hypertension and dyslipidemia (Barlow, 2007).

In contrast with waist circumference, BMI and its associated disease and mortality risk appear to vary among ethnic subgroups. Female African American populations appear to have the lowest mortality risk at a BMI of 26.2-28.5 kg/m² and 27.1-30.2 kg/m² for women and men, respectively. In contrast, Asian populations may experience lowest mortality rates starting at a BMI of 23 to 24 kg/m². The correlation between BMI and diabetes risk also varies by ethnicity (LeBlanc, 2011. p.2-3).

Screening for BMI and follow-up therefore is critical to closing this gap and contributes to quality goals of population health and cost reduction. However, due to concerns for other underlying conditions (such as bone health) or nutrition related deficiencies providers are cautioned to use clinical judgment and take these into account when considering weight management programs for overweight patients, especially the elderly (NHLBI Obesity Education Initiative, 1998, p. 91)

BMI below Normal Parameters

On the other end of the body weight spectrum is underweight (BMI <18.5 kg/m²), which is equally detrimental to population health. When compared to normal weight individuals (BMI 18.5-25 kg/m²), underweight individuals have significantly higher death rates with a Hazard Ratio of 2.27 and 95% confidence intervals (CI) = 1.78, 2.90 (Borrell & Lalitha (2014).

Poor nutrition or underlying health conditions can result in underweight (Fryer & Ogden, 2012). The National Health and Nutrition Examination Survey (NHANES) results from the 2007-2010 indicate that women are more likely to be underweight than men (2012). Therefore patients should be equally screened for underweight and followed up with nutritional counselling to reduce mortality and morbidity associated with underweight.

CLINICAL RECOMMENDATION STATEMENTS:

As cited in Fetch et al. (2013), The Institute for Clinical Systems Improvement (ICSI) Health Care Guideline, Prevention and Management of Obesity for Adults provides the Strength of Recommendation as Strong for the following:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease risk for patients who have normal or overweight BMI scores. For adult patients with a BMI of 25 to 34.9 kg/m², sex-specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.

Individuals who are overweight (BMI 25<30), and who do not have indicators of increased CVD risk (e.g., diabetes, pre-diabetes, hypertension, dyslipidemia, elevated waist circumference) or other obesity-related comorbidities and individuals who have a history of overweight and are now normal weight with risk factors at acceptable levels:

“Advise to frequently measure their own weight, and to avoid weight gain by adjusting their food intake if they start to gain more than a few pounds. Also, advise patients that engaging in regular physical activity will help them avoid weight gain.” (2013 AHA/AAC/TOS Obesity Guideline, p. S113)

USPSTF Clinical Guideline (Grade B Recommendation)

Individuals with a body mass index (BMI) of 30 kg/m² or higher should be offered or referred to intensive, multicomponent behavioral interventions that include the following components:

- Behavioral management activities, such as setting weight-loss goals
- Improving diet or nutrition and increasing physical activity
- Addressing barriers to change
- Self-monitoring
- Strategizing how to maintain lifestyle changes

Nutritional safety for the elderly should be considered when recommending weight reduction. “A clinical decision to forego obesity treatment in older adults should be guided by an evaluation of the potential benefits of weight reduction for day-to-day functioning and reduction of the risk of future cardiovascular events, as well as the patient’s motivation for weight reduction. Care

must be taken to ensure that any weight reduction program minimizes the likelihood of adverse effects on bone health or other aspects of nutritional status” Evidence Category D. (NHLBI Obesity Education Initiative, 1998, p. 91). In addition, weight reduction prescriptions in older persons should be accompanied by proper nutritional counseling and regular body weight monitoring. (NHLBI Obesity Education Initiative, 1998, p. 91).

The possibility that a standard approach to weight loss will work differently in diverse patient populations must be considered when setting expectations about treatment outcomes. Evidence Category B. (NHLBI Obesity Education Initiative, 1998).

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Quality Insights of Pennsylvania in contract with Centers for Medicare & Medicaid Services (CMS) developed measure, Body Mass Index. Specifications are copied and found in the CMS Quality Payment Program website at <https://qpp.cms.gov/about/resource-library> and eCQM version at <https://ecqi.healthit.gov/ecqm/measures/cms069v6>

MIPS #130 (NQF 0419, e-CQM CMS 68v7): Documentation of Current Medications in the Medical Record – National Quality Strategy Domain: Patient Safety

MEASURE TYPE: Process (high priority measure)

DESCRIPTION:

Percentage of visits for patients aged 18 years and older for which the eligible clinician attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications' name, dosage, frequency and route of administration.

INSTRUCTIONS:

This measure is to be submitted at **each denominator eligible visit** during the 12 month performance period. Eligible clinicians meet the intent of this measure by making their best effort to document a current, complete and accurate medication list during each encounter. There is no diagnosis associated with this measure. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All visits for patients aged 18 years and older

Denominator Criteria (Eligible Cases):

Patients aged \geq 18 years on date of encounter

AND

Patient encounter during the performance period (CPT or HCPCS): 59400, 59510, 59610, 59618, 90791, 90792, 90832, 90834, 90837, 90839, 92002, 92004, 92012, 92014, 92507, 92508, 92526, 92537, 92538, 92540, 92541, 92542, 92544, 92545, 92547, 92548, 92550, 92557, 92567, 92568, 92570, 92585, 92588, 92626, 96116, 96150, 96151, 96152, 97127*, 97161, 97162, 97163, 97164, 97165, 97166, 97167, 97168, 97802, 97803, 97804, 98960, 98961, 98962, 99024, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99221, 99222, 99223, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99495, 99496, 99281, 99282, 99283, 99284, 99285, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, G0101, G0108, G0270, G0402, G0438, G0439

NUMERATOR:

Eligible professional attests to documenting, updating or reviewing a patient's current medications using all resources available on the date of encounter. This list **must** include ALL known prescriptions, over-the counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications' name, dosages, frequency and route of administration.

Definitions:

Current Medications – Medications the patient is presently taking including all prescriptions, over-the- counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.

Route – Medications the patient is presently taking including all prescriptions, over-the- counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.

Not Eligible (Denominator Exception) – A patient is not eligible if the following reason is documented:

- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status on the date of the encounter

NUMERATOR NOTE: *The eligible clinician must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible clinicians submitting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. By submitting the action described in this measure, the provider attests to having documented a list of current medications utilizing all immediate resources available at the time of the encounter. G8427 should be submitted if the eligible clinician documented that the patient is not currently taking any medications*

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

Performance Met:

Eligible clinician attests to documenting in the medical record they obtained, updated, or reviewed the patient's current medications (**G8427**)

OR

Denominator Exception:

Eligible clinician attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible clinician (**G8430**)

OR

Performance Not Met:

Current list of medications **not** documented as obtained, updated, or reviewed by the eligible clinician, reason not given (**G8428**)

RATIONALE:

Maintaining an accurate and complete medication list has proven to be a challenging documentation endeavor for various health care provider settings. While most of outpatient encounters (2/3) result in providers prescribing at least one medication, hospitals have been the focus of medication safety efforts (Stock et al., 2009). Nassaralla et al. (2007) caution that this is at odds with the current trend, where patients with chronic illnesses are increasingly being treated in the outpatient setting and require careful monitoring of multiple medications. Additionally Nassaralla et al. (2007) reveal that it is in fact in outpatient settings where more fatal adverse drug events (ADE) occur when these are compared to those occurring in hospitals (1 of 131 outpatient deaths compared to 1 in 854 inpatient deaths). In the outpatient setting, adverse drug events (ADEs) occur 25% of the time and over one-third of these are considered preventable (Tache et al., 2011). Particularly vulnerable are patients over 65 years, with evidence suggesting that the rate of ADEs per 10,000 person per year increases with age; 25-44 years old at 1.3; 45-64 at 2.2, and 65 + at 3.8 (Sarkar et al., 2011). Another vulnerable group are chronically ill individuals. These population groups are more likely to experience ADEs and subsequent hospitalization.

A multiplicity of providers and inadequate care coordination among them has been identified as barriers to collecting complete and reliable medication records. Data indicate that reconciliation and documentation continues to be poorly executed with discrepancies occurring in 92% (74 of 80 patients) of medication lists among admittance to the emergency room. Of 80 patients included in the study, the home medications were re ordered for 65% of patients on their admission and of the 65% the majority (29%) had a change in their dosing interval, while 23% had a change in their route of administration, and 13% had a change in dose. A total of 361 medication discrepancies, or the difference between the medications patients were taking before admission and those listed in their admission orders, were identified in at least 74 patients. (Peusschers et al., 2015; Poornima et al., 2015) The study found that "Through an appropriate reconciliation programme, around 80% of errors relating to medication and the potential harm caused by these errors could be reduced." (Peusschers et al., 2015; Poornima et al., 2015)

Documentation of current medications in the medical record facilitates the process of medication review and reconciliation by the provider, which are necessary for reducing ADEs and promoting medication safety. The need for provider to provider coordination regarding medication records, and the existing gap in implementation, is highlighted in the American Medical Association's (AMA) Physician's Role in Medication Reconciliation (2007), which states that "critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes" (American Medical Association, 2007, p.7). This is because clinical decisions based on information that is incomplete and/or inaccurate are likely to lead to medication error and ADEs. Weeks et al. (2010) noted similar barriers and identified the utilization of health information technology as an opportunity for facilitating the creation of universal medication lists.

One 2015 meta-analysis showed an association between EHR documentation with an overall RR of 0.46 (95% CI = 0.38 to 0.55; P < 0.001) and ADEs with an overall RR of 0.66 (95% CI = 0.44 to 0.99; P = 0.045). This meta-analysis provides evidence that the use of the EHR can improve the quality of healthcare delivered to patients by reducing medication errors and ADEs (Campanella et al., 2016).

CLINICAL RECOMMENDATION STATEMENTS:

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: http://www.jointcommission.org/assets/1/6/2015_NPSG_AHC1.PDF).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care (p. 40).

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The American Medical Association and American Society of Hematology owned and developed measure, Documentation of Current Medications in the Medical Record, is copied and found in the CMS Quality Payment Program website at <https://qpp.cms.gov/about/resource-library> and eCQM version at <https://ecqi.healthit.gov/ecqm/measures/cms068v7>

MIPS #226 (NQF 0028, e-CQM CMS 138v6): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention – National Quality Strategy Domain: Community / Population Health

Measure Type: Process

DESCRIPTION:

Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months **AND** who received tobacco cessation intervention if identified as a tobacco user

INSTRUCTIONS:

This measure is to be submitted **once per performance period** for patients seen during the performance period. This measure is intended to reflect the quality of services provided for preventive screening for tobacco use. For the purposes of the measure, the most recent denominator eligible encounter should be used to determine if the numerator action for each of the submission criteria was performed within the 24 month look back period from the date of the denominator eligible encounter.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

THERE ARE THREE SUBMISSION CRITERIA FOR THIS MEASURE:

1. Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months
2. Percentage of patients aged 18 years and older who were screened for tobacco use and identified as a tobacco user who received tobacco cessation intervention
3. Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

SUBMISSION CRITERIA 1: ALL PATIENTS WHO WERE SCREENED FOR TOBACCO USE

DENOMINATOR (SUBMISSION CRITERIA 1):

All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years on date of encounter

AND

At least two patient encounters during the performance period (CPT): 90791, 90792, 90832, 90834, 90837, 90845, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT

OR At least one preventive encounter during the performance period (CPT or HCPCS): 92521, 92522, 92523, 92524, 92540, 92557, 96160, 96161, 92625, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99406, 99407, 99411*, 99412*, 99429*, G0438, G0439

WITHOUT

Telehealth Modifier: GQ GT, 95, POS 02,

NUMERATOR (SUBMISSION CRITERIA 1):

Patients who were screened for tobacco use at least once within 24 months

Definitions:

Tobacco Use – Includes any type of tobacco

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and tobacco status is unknown, submit G9905. Denominator Exception(s) are determined on the date of the most recent denominator eligible encounter for all submission criteria.

Numerator Options:

Performance Met:

Patient screened for tobacco use AND identified as a tobacco user (**G9902**)

OR

Performance Met:

Patient screened for tobacco use AND identified as a tobacco non-user (**G9903**)

OR

Denominator Exception:

Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (**G9904**)

OR

Performance Not Met:

Patient not screened for tobacco use, reason not given (**G9905**)

SUBMISSION CRITERIA 2: ALL PATIENTS WHO WERE IDENTIFIED AS A TOBACCO USER AND WHO RECEIVED TOBACCO CESSATION INTERVENTION

DENOMINATOR (SUBMISSION CRITERIA 2):

All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period who were screened for tobacco use and identified as a tobacco user

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years

AND

All eligible instances when (**G9902**) Patient screened for tobacco use AND identified as a tobacco user that are utilized in submission of Performance Met Patient Screened for Tobacco Use, Identified as a Tobacco User in the numerator for submission criteria one

AND

At least two patient encounters during the performance period (CPT): 90791, 90792, 90832, 90834, 90837, 90845, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

OR

At least one preventive encounter during the performance period (CPT or HCPCS): 92521, 92522, 92523, 92524, 92540, 92557, 92625, 96160, 96161, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, G0438, G0439

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR (SUBMISSION CRITERIA 2):

Patients who received tobacco cessation intervention

Definitions:

Tobacco Cessation Intervention Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

Note: For the purpose of this measure, brief counseling (e.g., minimal and intensive advice/counseling interventions conducted both in person and over the phone) qualifies for the numerator. Written self-help materials (e.g., brochures, pamphlets) and complementary/alternative therapies do not qualify for the numerator.

NUMERATOR NOTE: *This measure defines tobacco cessation counseling as lasting 3 minutes or less. Services typically provided under CPT codes 99406 and 99407 satisfy the requirement of tobacco cessation intervention, as these services provide tobacco cessation counseling for 3-10 minutes. If a patient received these types of services, submit G-code G9906. Denominator Exception(s) are determined on the date of the most recent denominator eligible encounter for all submission criteria.*

Numerator Options:

Performance Met:

Patient identified as a tobacco user received tobacco cessation intervention (counseling and/or pharmacotherapy) (**G9906**)

OR

Denominator Exception:

Documentation of medical reason(s) for not providing tobacco cessation intervention (e.g., limited life expectancy, other medical reason) (**G9907**)

OR

Performance Not Met:

Patient identified as tobacco user did not receive tobacco cessation intervention (counseling and/or pharmacotherapy), reason not given (**G9908**)

SUBMISSION CRITERIA 3: ALL PATIENTS WHO WERE SCREENED FOR TOBACCO USE AND, IF IDENTIFIED AS A TOBACCO USER, RECEIVED TOBACCO CESSATION INTERVENTION OR IDENTIFIED AS A TOBACCO NON-USER

DENOMINATOR (SUBMISSION CRITERIA 3):

All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period

DENOMINATOR NOTE: **Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.*

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years

AND

At least two patient encounters during the performance period (CPT): 90791, 90792, 90832, 90834, 90837, 90845, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

OR

At least one preventive encounter during the performance period (CPT or HCPCS): 92521, 92522, 92523, 92524, 92540, 92557, 92625, 96160, 96161, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, G0438, G0439

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR (SUBMISSION CRITERIA 3):

Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:

Tobacco Use – Includes any type of tobacco

Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy

Note: For the purpose of this measure, brief counseling (e.g., minimal and intensive advice/counseling interventions conducted both in person and over the phone) qualifies for the numerator. Written self-help materials (e.g., brochures, pamphlets) and complementary/alternative therapies do not qualify for the numerator.

NUMERATOR NOTE: *In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention or if tobacco status is unknown, submit 4004F with 8P. This measure defines tobacco cessation counseling as lasting 3 minutes or less. Services typically provided under CPT codes 99406 and 99407 satisfy the requirement of tobacco cessation intervention, as these services provide tobacco cessation counseling for 3-10 minutes. If a patient received these types of services, submit CPT II 4004F. Denominator Exception(s) are determined on the date of the most recent denominator eligible encounter for all submission criteria.*

Numerator Options:

Performance Met:

Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user **(4004F)**

OR

Performance Met:

Current tobacco non-user **(1036F)**

OR

Denominator Exception:

Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reason) **(4004F with 1P)**

OR

Denominator Exception:

Documentation of medical reason(s) for not providing tobacco cessation intervention if identified as a tobacco user (e.g., limited life expectancy, other medical reason) **(G9909)**

OR

Performance Not Met:

Tobacco screening not performed OR tobacco cessation intervention not provided, reason not otherwise specified **(4004F with 8P)**

RATIONALE:

This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop using tobacco lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:

The USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and U.S. Food and Drug Administration (FDA) – approved pharmacotherapy for cessation to adults who use tobacco. (Grade A Recommendation) (U.S. Preventive Services Task Force, 2015)

The USPSTF recommends that clinicians ask all pregnant women about tobacco use, advise them to stop using tobacco, and provide behavioral interventions for cessation to pregnant women who use tobacco. (Grade A Recommendation) (U.S. Preventive Services Task Force, 2015)

The USPSTF concludes that the current evidence is insufficient to recommend electronic nicotine delivery systems for tobacco cessation in adults, including pregnant women. The USPSTF recommends that clinicians direct patients who smoke tobacco to other cessation interventions with established effectiveness and safety (previously stated). (Grade I Statement) (U.S. Preventive Services Task Force, 2015)

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MIPS #238 (NQF 0022, e-CQM CMS 156v6) Use of High-Risk Medications in the Elderly – National Quality Strategy Domain: Patient Safety

Measure Type: Process (high priority measure)

DESCRIPTION:

Percentage of patients 65 years of age and older who were ordered high-risk medications. Two rates are reported.

1. Percentage of patients who were ordered at least one high-risk medication.
2. Percentage of patients who were ordered at least two of the same high-risk medication

INSTRUCTIONS:

This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

This measure will be calculated with 2 performance rates:

1. Percentage of patients who were ordered at least one high-risk medication
2. Percentage of patients who were ordered at least two of the same high-risk medication

Eligible clinicians should continue to submit the measure as specified, with no additional steps needed to account for multiple performance rates.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

THERE ARE TWO SUBMISSION CRITERIA FOR THIS MEASURE:

- 1) **Percentage of patients who were ordered at least one high-risk medication**

OR

- 2) **Percentage of patients who were ordered at least two of the same high-risk medications**

SUBMISSION CRITERIA 1: PERCENTAGE OF PATIENTS WHO WERE ORDERED AT LEAST ONE HIGH-RISK MEDICATION

DENOMINATOR (SUBMISSION CRITERIA 1):

Patients 65 years and older who had a visit during the measurement period

Denominator Criteria (Eligible Cases) 1:

Patients aged ≥ 65 years on date of encounter

AND

Patient encounter during performance period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0438, G0439

AND NOT

DENOMINATOR EXCLUSION:

Patients who use hospice services any time during the measurement period: G9741

NUMERATOR (REPORTING CRITERIA 1):

Percentage of patients who were ordered at least one high-risk medication during the measurement period

Numerator Instructions:

INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Submitting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

A high-risk medication is identified by either of the following:

- A prescription for medications classified as high risk at any dose and for any duration listed in Table 1
- Prescriptions for medications classified as high risk at any dose with greater than a 90 day cumulative medication duration listed in Table 2

Definitions:

The intent of Numerator 1 is to assess if the patient has been prescribed at least one high-risk medication.

Cumulative Medication Duration - an individual’s total number of medication days over a specific period; the period counts multiple prescriptions with gaps in between, but does not count the gaps during which a medication was not dispensed.

To determine the cumulative medication duration, determine first the number of the Medication Days for each prescription in the period: the number of doses divided by the dose frequency per day. Then add the Medication Days for each prescription without counting any days between the prescriptions.

Table 1 – High-Risk Medications at any dose or duration

| Description | Prescription |
|---|---|
| Anticholinergics, first-generation antihistamines | Brompheniramine Carbinoxamine Chlorpheniramine Clemastine Cyproheptadine Dexbrompheniramine Dexchlorpheniramine Dimenhydrinate Diphenhydramine (oral) Doxylamine Hydroxyzine Meclizine Promethazine Triprolidine |
| Anticholinergics, anti-Parkinson agents | Benzotropine (oral) Trihexyphenidyl |
| Antispasmodics | Atropine (exclude ophthalmic) Belladonna alkaloids Clidinium-chloradiazepoxide Dicyclomide Hyoscyamine Propantheline Scopolamine |
| Antithrombotics | Dipyridamole, oral short-acting (does not apply to the combination with aspirin) Ticlopidine |
| Cardiovascular, alpha agonists, central | Guanabenz Methyldopa Guanfacine |
| Cardiovascular, other | Disopyramide Nifedipine, immediate release |
| Central nervous system, antidepressants | Amitriptyline Clomipramine Amoxapine Desipramine Imipramine Trimipramine Nortriptyline Paroxetine Protriptyline |

| | | |
|--|--|--|
| Central nervous system, barbiturates | Amobarbital Butobarbital Butalbital Mephobarbital | Pentobarbital Phenobarbital Secobarbital |
| Central nervous system, vasodilators | Ergot mesylates | Isoxsuprine |
| Central nervous system, other | | Meprobamate |
| Endocrine system, estrogens with or without progestins; include only oral and topical patch products | Conjugated estrogen Etopipate | Estradiol Esterified estrogen |
| Endocrine system, sulfonylureas, long- duration | Chlorpropamide | Glyburide |
| Endocrine system, other | Desiccated thyroid | Megestrol |
| Pain medications, skeletal muscle relaxants | Carisoprodol Chlorzoxazone Cyclobenzaprine | Metaxalone Methocarbamol Orphenadrine |
| Pain medications, other | Indomethacin Meperidine | Ketorolac, includes parenteral Pentazocine |

Table 2 - High-Risk Medications With Days Supply Criteria

| Description | Prescription | Days Supply Criteria | |
|-----------------------------|--|--|----------|
| Anti-Infectives, other | <ul style="list-style-type: none"> Nitrofurantoin Nitrofurantoin macrocrystals | <ul style="list-style-type: none"> Nitrofurantoin macrocrystals-monohydrate | >90 days |
| Nonbenzodiazepine hypnotics | <ul style="list-style-type: none"> Eszopiclone Zaleplon | <ul style="list-style-type: none"> Zolpidem | >90 days |

NUMERATOR NOTE: NUMERATOR NOTE: Some high-risk medications are not included in this specific measure but should be avoided above a specified average daily dose. These medications are listed in Table 3. To calculate an average daily dose multiply the quantity of pills ordered by the dose of each pill and divide by the days supply. For example, a prescription for a 30-days supply of digoxin containing 15 pills, 0.250 mg each pill, has an average daily dose of 1.125 mg.

Table 3 - High-Risk Medications With Average Daily Dose Criteria

| Description | Prescription | Average Daily Dose Criteria |
|--|--------------|-----------------------------|
| Alpha agonists, central | Reserpine | >0.1 mg/day |
| Cardiovascular, other | Digoxin | >0.125 mg/day |
| Tertiary TCAs (as single agent or as part of combination products) | Doxepin | >6 mg/day |

| | | |
|-----------|------------------------------------|---|
| OR | <u>Numerator Options:</u> | |
| | <i>Performance Met:</i> | One high-risk medication ordered (G9365) |
| | <i>Performance Not Met:</i> | One high-risk medication not ordered (G9366) |

OR

SUBMISSION CRITERIA 2: PERCENTAGE OF PATIENTS WITH AT LEAST TWO ORDERS FOR THE SAME HIGH-RISK MEDICATION

DENOMINATOR (SUBMISSION CRITERIA 2):

Patients 65 years and older who had a visit during the measurement period

Denominator Criteria (Eligible Cases) 2:

Patients aged ≥ 65 years on date of encounter

AND

Patient encounter during performance period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0438, G0439

AND NOT

DENOMINATOR EXCLUSION:

Patients who use hospice services any time during the measurement period: G9741

NUMERATOR (SUBMISSION CRITERIA 2):

Percentage of patients with at least two orders for the same high-risk medication- during the measurement period

Numerator Instructions:

INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Submitting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

A high-risk medication is identified by either of the following:

- A prescription for medications classified as high risk at any dose and for any duration listed in Table 4
- Prescriptions for medications classified as high risk at any dose with greater than a 90 day cumulative medication duration listed in Table 5

Definitions:

The intent of Numerator 2 is to assess if the patient has either been prescribed at least two of the same high-risk medication in Table 4, received two or more prescriptions, where the sum of days supply exceeds 90 days, for medications in the same medication class in Table 5. The intent of the measure is to assess if the submitting provider ordered the high-risk medication(s). If the patient had a high-risk medication previously prescribed by another provider, they would not be counted towards the numerator unless the submitting provider also ordered a high-risk medication for them.

Cumulative Medication Duration – an individual's total number of medication days over a specific period; the period counts multiple prescriptions with gaps in between, but does not count the gaps during which a medication was not dispensed.

To determine the cumulative medication duration, determine first the number of the Medication Days for each prescription in the period: the number of doses divided by the dose frequency per day. Then add the Medication Days for each prescription without counting any days between the prescriptions.

For example, there is an original prescription for 30 days with 2 refills for thirty days each. After a gap of 3 months, the medication was prescribed again for 60 days with 1 refill for 60 days. The cumulative medication duration is (30 x 3) + (60 x 2) = 210 days over the 10 month period.

Table 4 - High-Risk Medications at any dose or duration

| Description | Prescription | |
|--|---|--|
| Anticholinergics, first-generation antihistamines | Brompheniramine Carbinoxamine Chlorpheniramine Clemastine Cyproheptadine Dexbrompheniramine Dexchlorpheniramine Dimenhydrinate | Diphenhydramine (oral) Doxylamine Hydroxyzine Meclizine Promethazine Triprolidine |
| Anticholinergics, anti-Parkinson agents | Benztropine (oral) | Trihexyphenidyl |
| Antispasmodics | Atropine (exclude ophthalmic) Belladonna alkaloids Clidinium-chloradiazepoxide Dicyclomide | Hyoscyamine Propantheline Scopolamine |
| Antithrombotics | Dipyridamole, oral short-acting (does not apply to the combination with aspirin) | Ticlopidine |
| Cardiovascular, alpha agonists, central | Guanabenz Methyldopa | Guanfacine |
| Cardiovascular, other | Disopyramide | Nifedipine, immediate release |
| Central nervous system, antidepressants | Amitriptyline Clomipramine Amoxapine Desipramine | Imipramine Trimipramine Nortriptyline Paroxetine Protriptyline |
| Central nervous system, barbiturates | Amobarbital Butabarbital Butalbital Mephobarbital | Pentobarbital Phenobarbital Secobarbital |
| Central nervous system, vasodilators | Ergot mesylates | Isoxsuprine |
| Central nervous system, other | | Meprobamate |
| Endocrine system, estrogens with or without progestins; include only oral and topical patch products | Conjugated estrogen Etopipate | Estradiol Esterified estrogen |
| Endocrine system, sulfonylureas, long- duration | Chlorpropamide | Glyburide |
| Endocrine system, other | Desiccated thyroid | Megestrol |
| Pain medications, skeletal muscle relaxants | Carisoprodol Chlorzoxazone Cyclobenzaprine | Metaxalone Methocarbamol Orphenadrine |
| Pain medications, other | Indomethacin Meperidine | Ketorolac, includes parenteral Pentazocine |

*The registry version of the measure specifications only indicate the classes of drugs that are considered high-risk and do not include the specific coding of RxNorm. However, this measure aligns with the eCQM measure (CMS 156) and providers may review the RxNorm codes in the applicable eCQM value sets for submission.

Table 5 - High-Risk Medications With Days Supply Criteria

| Description | | Prescription | Days Supply Criteria |
|-----------------------------|--|--|----------------------|
| Anti-Infectives, other | Nitrofurantoin Nitrofurantoin macrocrystals | Nitrofurantoin macrocrystals-monohydrate | >90 days |
| Nonbenzodiazepine hypnotics | Eszopiclone Zaleplon | Zolpidem | >90 days |

NUMERATOR NOTE: Some high-risk medications are not included in this specific measure but should be avoided above a specified average daily dose. These medications are listed in Table 6. To calculate an average daily dose multiply the quantity of pills ordered by the dose of each pill and divide by the days supply. For example, a prescription for a 30-days supply of digoxin containing 15 pills, 0.250 mg each pill, has an average daily dose of 0.125mg.

Table 6 - DAE-C: High-Risk Medications With Average Daily Dose Criteria

| Description | Prescription | Average Daily Dose Criteria |
|--|--------------|-----------------------------|
| Alpha agonists, central | Reserpine | >0.1 mg/day |
| Cardiovascular, other | Digoxin | >0.125 mg/day |
| Tertiary TCAs (as single agent or as part of combination products) | Doxepin | >6 mg/day |

Numerator Options:

Performance Met:

At least two orders for the same high-risk medication (**G9367**)

OR

Performance Not Met:

At least two orders for the same high-risk medications not ordered (**G9368**)

RATIONALE:

Seniors receiving inappropriate medications are more likely to report poorer health status at follow-up, compared to seniors who receive appropriate medications (Fu, Liu, and Christensen 2004). A study of the prevalence of potentially inappropriate medication use in older adults found that 40 percent of individuals 65 and older filled at least one prescription for a potentially inappropriate medication and 13 percent filled two or more (Fick et al. 2008). While some adverse drug events are not preventable, studies estimate that between 30 and 80 percent of adverse drug events in the elderly are preventable (MacKinnon and Hepler 2003).

Reducing the number of inappropriate prescriptions can lead to improved patient safety and significant cost savings. Conservative estimates of extra costs due to potentially inappropriate medications in the elderly average \$7.2 billion a year (Fu et al. 2007). Medication use by older adults will likely increase further as the U.S. population ages, new drugs are developed, and new therapeutic and preventive uses for medications are discovered (Rothberg et al. 2008). The annual direct costs of preventable adverse drug events (ADEs) in the Medicare population have been estimated to exceed \$800 million (IOM, 2007). By the year 2030, nearly one in five U.S. residents is expected to be aged 65 years or older; this age group is projected to more than double in number from 38.7 million in 2008 to more than 88.5 million in 2050. Likewise, the population aged 85 years or older is expected to increase almost four-fold, from 5.4 million to 19 million between 2008 and 2050. As the elderly population continues to grow, the number of older adults who present with multiple medical conditions for which several medications are prescribed continues to increase, resulting in polypharmacy (Gray and Gardner 2009).

CLINICAL RECOMMENDATION STATEMENTS:

The measure is based on recommendations from the American Geriatrics Society Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. The criteria were developed through key clinical expert consensus processes by Beers in 1997,

Zahn in 2001 and an updated process by Fick in 2003, 2012 and 2015. The Beers Criteria identifies lists of drugs that are potentially inappropriate for all older adults and drugs that are potentially inappropriate in the elderly based on various high-risk factors such as dosage, days' supply and underlying diseases or conditions. NCQA's Medication Management expert panel selected a subset of drugs that should be used with caution in the elderly for inclusion in the proposed measure based upon the recommendations in the Beers Criteria.

Certain medications (MacKinnon 2003) are associated with increased risk of harm from drug side-effects and drug toxicity and pose a concern for patient safety. There is clinical consensus that these drugs pose increased risks in the elderly (Kaufman 2005). Studies link prescription drug use by the elderly with adverse drug events that contribute to hospitalization, increased length of hospital stay, increased duration of illness, nursing home placement and falls and fractures that are further associated with physical, functional and social decline in the elderly (AHRQ 2009).

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**MIPS #240 (NQF 0038, e-CQM CMS 117v6) Childhood Immunization Status – National Quality Strategy
Domain: Community / Population Health**

Measure Type: Process

DESCRIPTION:

Percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV), one measles, mumps and rubella (MMR); three H influenza type B (HiB); three hepatitis B (Hep B); one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday

DENOMINATOR:

Children who turn 2 years of age during the measurement period and who have a visit during the measurement period

NUMERATOR:

Children who have evidence showing they received recommended vaccines, had documented history of the illness, had a seropositive test result, or had an allergic reaction to the vaccine by their second birthday

RATIONALE:

Infants and toddlers are particularly vulnerable to infectious diseases because their immune systems have not built up the necessary defenses to fight infection (Centers for Disease Control and Prevention 2011). Most childhood vaccines are between 90 and 99 percent effective in preventing diseases (HealthyChildren 2011). Immunization is a critical aspect of preventive care for children. Lack of proper immunization leads to an increase in illness, doctor visits and hospitalizations, all of which translate into higher costs. (Tatzlandrew, Brown, and Halpern). Vaccination of each U.S. birth cohort with the current childhood immunization schedule prevents approximately 42,000 deaths and 20 million cases of disease, and saves nearly \$14 billion in direct costs and \$69 billion in societal costs each year (Zhou 2011; Centers for Disease Control and Prevention 2011b).

Immunizing a child not only protects that child's health but also the health of the community, especially for those who are not immunized or are unable to be immunized due to other health complications (Centers for Disease Control and Prevention 2009). When the majority of the community is immunized against a disease, other members of the community are also protected because herd immunity shields them. (National Institute of Allergy and Infectious Diseases 2010).

CLINICAL RECOMMENDATION STATEMENT:

Summary of Recommendations for Child/Teen Immunization (Ages birth through 18 years) (Immunization Action Coalition) based on recommendations of the Advisory Committee on Immunization Practices (ACIP, 2012)

Hepatitis B (HepB)

- Vaccinate all children age 0 through 18 years
- Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at age 1-2 months and the final dose at age 6-18 months (the last dose in the infant series should not be given earlier than age 24 weeks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine or up to 3 doses of Comvax(r) (ages 2 months, 4 months 12-15 months) or Pediarix(r) (ages 2 months, 4 months, 6 months), which may result in giving a total of 4 doses of hepatitis B vaccine.
- If mother is HBsAg-positive: give the newborn HBIG + dose #1 within 12 hours of birth; complete series at age 6 months or, if using Comvax(r), at age 12-15 months.
- If mother is HBsAg status is unknown: given the newborn dose #1 within 12 hours of birth. If low birth weight (less than 2000 grams), also give HBIG within 12 hours. For infants weighing 2000 grams or more whose mother is subsequently found to be HBsAg positive, give the infant HBIG ASAP (no later than 7 days of birth) and follow HepB immunization schedule for infants born to HBsAg-positive mothers.

4 Diphtheria, tetanus, acellular pertussis vaccinations (DTap, DT)

- Give to children at ages 2 months, 4 months, 6 months, 15-18 months, 4-6 years.- May give dose #1 as early as age 6 weeks.
- May give #4 as early as age 12 months if 6 months have elapsed since #3.
- Do not give DTaP/DT to children age 7 years and older.
- If possible, use the same DTaP product for all doses.

Hib (Haemophilus influenzae type b)

- ActHib(r) (PRP-T): give at age 2 months, 4 months, 6 months, 12-15 months (booster dose).
- PedvaxHIB(r) or Comvax(r) (containing PRP-OMP): give at age 2 months, 4 months, 12-15 months (booster dose).
- Dose #1 of Hib vaccine should not be given earlier than age 6 weeks.
- Give final dose (booster dose) no earlier than age 12 months and a minimum of 8 weeks after the previous dose.
- Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses is necessary to complete the primary series in infants.
- Any Hib vaccine may be used for the booster dose.
- Hib is not routinely given to children age 5 years and older.
- Hiberix(r) is approved ONLY for the booster dose at age 12 months through 4 years.

Polio (IPV)

- Give to children at ages 2 months, 4 months, 6-18 months, 4-6 years.
- May give dose #1 as early as age 6 weeks.
- Not routinely recommended for U.S. residents age 18 years and older (except certain travelers).

Measles, mumps, rubella (MMR)

- Give dose #1 at age 12-15 months.
- Give MMR at age 6 through 11 months if traveling internationally; then revaccinate at age 12 months (and at least 4 weeks from previous dose). The dose given at younger than 12 months does not count toward the 2-dose series.
- Give dose #2 at age 4-6 years. Dose #2 may be given earlier if at least 4 weeks since dose #1. For MMRV: dose #2 may be given earlier if at least 3 months since dose #1.
- Give a 2nd dose to all older children and teens with history of only 1 dose.

MMRV may be used in children age 12 months through 12 years. For the first dose of MMR and varicella given at age 12-47 months, either MMR and Varicella (Var) or MMRV may be used. Unless the parent or caregiver expresses a preference for MMRV, CDC recommends that MMR and Var should be given for the first dose in this age group.

Pneumococcal conjugate (PCV13)

- Give at ages 2 months, 4 months, 6 months, 12-15 months.
- Dose #1 may be given as early as age 6 weeks.
- When children are behind on PCV schedule, minimum interval for doses given to children younger than age 12 months is 4 weeks; for doses given at 12 months and older, it is 8 weeks.
- Give 1 dose to unvaccinated healthy children age 24-59 months.
- For high-risk children ages 24-71 months: give 2 doses at least 8 weeks apart if they previously received fewer than 3 doses; give 1 dose at least 8 weeks after the most recent dose if they previously received 3 doses. (High risk: those with sickle cell disease; anatomic or functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppression; diseases associated with immunosuppressive and/or radiation therapy; or who have or will have a cochlear implant.)
- PCV13 is not routinely given to healthy children age 5 years and older.

Varicella (Var)

- Give dose #1 at age 12-15 months.
- Give dose #2 at age 4-6 years. Dose #2 of Var or MMRV may be given earlier if at least 3 months since dose #1.
- Give a 2nd dose to all older children/teens with history of only 1 dose.
- MMRV may be used in children age 12 months through 12 years. For the first dose of MMR and varicella given at age 12-47 months, either MMR and Var or MMRV may be used. Unless the parent or caregiver expresses a preference for MMRV, CDC recommends that MMR and Var should be given for the first dose in this age group.

Hepatitis A (HepA)

- Give 2 doses spaced 6 to 18 months apart to all children at age 1 year (12-23 months).

Rotavirus (RV)

- Rotarix(r) (RV1): give at age 2 months, 4 months.
- RotaTeq(r) (RV5): give at age 2 months, 4 months, 6 months.
- May give dose #1 as early as age 6 weeks.

- Give final dose no later than age 8 months 0 days.

Influenza (trivalent inactivated influenza (TIV), live attenuated influenza vaccine (LAIV))

- Vaccinate all children and teens age 6 months through 18 years.

- LAIV may be given to healthy, non-pregnant people age 2-49 years.

- Give 2 doses, spaced 4 weeks apart, to children age 6 months through 8 years who 1) are first-time vaccines or 2) failed to receive at least 1 dose of the 2010-2011 vaccine.

- For TIV, give 0.25 mL dose to children age 6-35 months and 0.5 mL dose if age 3 years and older.

- If LAIV and either MMR, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28 days apart.

Technical content reviewed by the Centers for Disease Control and Prevention, January 2012.

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MIPS #317 (e-CQM CMS 22v6): Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented – National Quality Strategy Domain: Community / Population Health

Measure Type: Process

DESCRIPTION:

Percentage of patients aged 18 years and older seen during the submitting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated

INSTRUCTIONS:

This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. Eligible clinicians who submit the measure must perform the blood pressure screening at the time of a qualifying visit and may not obtain measurements from external sources.

This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. The intent of this measure is to screen patients for high blood pressure and provide recommended follow-up as indicated. Both the systolic and diastolic blood pressure measurements are required for inclusion. If there are multiple blood pressures on the same date of service, use the most recent (last reading documented) as the representative blood pressure. The documented follow-up plan must be related to the current BP reading as indicated, example: "Patient referred to primary care provider for BP management".

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.

Denominator Criteria (Eligible Cases):

Patients aged \geq 18 years

AND

Patient encounter during the performance period (CPT or HCPCS): 90791, 90792, 92002, 92004, 92012, 92014, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99281, 99282, 99283, 99284, 99285, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99318, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, D7140, D7210, G0101, G0402, G0438, G0439

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND NOT

DENOMINATOR EXCLUSION:

*Patient not eligible due to active diagnosis of hypertension: G9744

NUMERATOR:

Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive

NUMERATOR NOTE: Although the recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, BP screening and follow-up must be performed once per performance period. For patients with Normal blood pressure, a follow-up plan is not required. If the blood pressure is pre-hypertensive (SBP > 120 and

<139 OR DBP >80 and <89) at a Primary Care Provider (PCP) encounter follow up as directed by the PCP would meet the intent of the measure (G8783).

Definitions:

Blood Pressure (BP) Classification - BP is defined by four (4) BP reading classifications: Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings

Recommended BP Follow-Up - The Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommends BP screening intervals, lifestyle modifications and interventions based on the current BP reading as listed in the "Recommended Blood Pressure Follow- Up Interventions" listed below

Recommended Lifestyle Modifications - The JNC 7 report outlines lifestyle modifications which must include one or more of the following as indicated:

- Weight Reduction
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan
- Dietary Sodium Restriction
- Increased Physical Activity
- Moderation in alcohol (ETOH) Consumption

Second Hypertensive Reading - Requires a BP reading of Systolic BP \geq 140 mmHg OR Diastolic BP \geq 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP \geq 140 mmHg OR Diastolic BP \geq 90 mmHg

Second Hypertensive BP Reading Interventions - The JNC 7 report outlines BP follow-up interventions for a second hypertensive BP reading and **must** include one or more of the following as indicated:

- Anti-Hypertensive Pharmacologic Therapy
- Laboratory Tests
- Electrocardiogram (ECG)

Recommended Blood Pressure Follow-up Interventions-

- Normal BP: No follow-up required for Systolic BP <120 mmHg AND Diastolic BP < 80 mmHg
- Pre-Hypertensive BP: Follow-up with rescreen every year with systolic BP of 120 – 139 mmHg OR diastolic BP of 80 – 89 mmHg AND recommended lifestyle modifications OR referral to Alternate/Primary Care Provider
- First Hypertensive BP Reading: Patients with one elevated reading of systolic BP \geq 140 mmHg OR diastolic BP \geq 90 mmHg:
 - Follow-up with rescreen > 1 day and < 4 weeks AND recommend lifestyle modifications OR referral to Alternative/Primary Care Provider
- Second Hypertensive BP Reading: Patients with second elevated reading of systolic BP \geq 140 mmHg OR diastolic BP \geq 90 mmHg:
 - Follow-up with Recommended lifestyle modifications AND one or more of the Second Hypertensive Reading Interventions OR referral to Alternative/Primary Care Provider

Recommended Blood Pressure Follow-Up Table

| BP Classification | Systolic BP mmHg | Diastolic BP mmHg | Recommended Follow-Up (must include all indicated actions for each BP Classification) |
|--------------------------------|------------------|---------------------|---|
| Normal BP Reading | < 120 | AND < 80 | No Follow-Up required |
| Pre-Hypertensive BP Reading | ≥ 120 AND ≤ 139 | OR ≥ 80 AND ≤ 89 | Rescreen BP within a minimum of 1 year <u>AND</u> Recommend Lifestyle Modifications <u>OR</u> Referral to Alternative/Primary Care Provider |
| First Hypertensive BP Reading | ≥ 140 | OR ≥ 90 | Rescreen BP within a minimum of > 1 day and < 4 weeks <u>AND</u> Recommend Lifestyle Modifications <u>OR</u> Referral to Alternative/Primary Care Provider |
| Second Hypertensive BP Reading | ≥ 140 | OR ≥ 90 | Recommend Lifestyle Modifications <u>AND</u> 1 or more of the Second Hypertensive Reading Interventions (see definitions) <u>OR</u> Referral to Alternative/Primary Care Provider |

***Not Eligible for High Blood Pressure Screening (Denominator Exclusion) –**

- Patient has an active diagnosis of hypertension starts prior to the current encounter

****Patients with a Documented Reason for not Screening or Follow-Up Plan for High Blood Pressure (Denominator Exception) -**

- Patient refuses to participate (either BP measurement or follow-up)
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status. This may include but is not limited to severely elevated BP when immediate medical treatment is indicated

Numerator Options:

Performance Met

Normal blood pressure reading documented, follow-up not required (**G8783**)

OR

Performance Met:

Pre-Hypertensive or Hypertensive blood pressure reading documented, AND the indicated follow-up is documented (**G8950**)

OR

Denominator Exception:

Documented reason for not screening or recommending a follow-up for high blood pressure (G9745**)

OR

Performance Not Met:

Blood pressure reading not documented, reason not given (**G8785**)

OR
Performance Not Met:

Pre-Hypertensive or Hypertensive blood pressure reading documented, indicated follow-up not documented, reason not given
(G8952)

RATIONALE:

Hypertension is a prevalent condition that affects approximately 66.9 million people in the United States. It is estimated that about 20-40% of the adult population has hypertension; the majority of people over age 65 have a hypertension diagnosis (Appleton SL, et. al., 2012 and Luehr D, et. al., 2012). Winter (2013) noted that 1 in 3 American adults have hypertension and the lifetime risk of developing hypertension is 90% (Winter KH, et. al., 2013). The African American population or non-Hispanic Blacks, the elderly, diabetics and those with chronic kidney disease are at increased risk of stroke, myocardial infarction and renal disease. Non-Hispanic Blacks have the highest prevalence at 38.6% (Winter KH, et. al., 2013). Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke and dementia (Luehr D, et. al., 2012).

Hypertension is the most common reason for adult office visits other than pregnancy. Garrison (2013) stated that in 2007, 42 million ambulatory visits were attributed to hypertension (Garrison GM and Oberhelman S, 2013). It also has the highest utilization of prescription drugs. Numerous resources and treatment options are available, yet only about 40-50% of the hypertensive patients have their blood pressure under control (<140/90) (Appleton SL, et. al., 2012, Luehr D, et. al., 2012). In addition to medication non-compliance, poor outcomes are also attributed to poor adherence to lifestyle changes such as a low-sodium diet, weight loss, increased exercise and limiting alcohol intake. Many adults find it difficult to continue medications and lifestyle changes when they are asymptomatic. Symptoms of elevated blood pressure usually do not occur until secondary problems arise such as with vascular diseases (myocardial infarction, stroke, heart failure and renal insufficiency) (Luehr D, et. al., 2012).

Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. The 2010 ACCF/AHA Guideline for the Assessment of Cardiovascular Risk in Asymptomatic Adults continues to support using a global risk score such as the Framingham Risk Score, to assess risk of coronary heart disease (CHD) in all asymptomatic adults (Greenland P, et. al., 2010). Lifestyle modifications have demonstrated effectiveness in lowering blood pressure (JNC 7, 2003). The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.

CLINICAL RECOMMENDATION STATEMENTS:

The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.

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MIPS #374 (e-CQM CMS 50v6) Closing the Referral Loop: Receipt of Specialist Report – National Quality Strategy Domain: Communication and Care Coordination

Measure Type: Process (high priority measure)

DESCRIPTION:

Percentage of patients with referrals, regardless of age, for which the referring provider receives a report from the provider to whom the patient was referred

DENOMINATOR:

Number of patients, regardless of age, who were referred by one provider to another provider, and who had a visit during the measurement period

Patient encounter during the performance period (CPT or HCPCS): 92002, 92004, 92012, 92014, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99381*, 99382*, 99383*, 99384*, 99385*, 99386*, 99387*, 99391*, 99392*, 99393*, 99394*, 99395*, 99396*, 99397*

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Patient was referred to another provider or specialist during the performance period:
G9968

NUMERATOR:

Number of patients with a referral, for which the referring provider received a report from the provider to whom the patient was referred

Performance Met: Provider who referred the patient to another provider received a report from the provider to whom the patient was referred (**G9969**)

OR

Performance Not Met: Provider who referred the patient to another provider did not receive a report from the provider to whom the patient was referred (**G9970**)

RATIONALE:

Problems in the outpatient referral and consultation process have been documented, including lack of timeliness of information and inadequate provision of information between the specialist and the requesting physician (Gandhi, 2000; Forrest, 2000; Stille, 2005). In a study of physician satisfaction with the outpatient referral process, Gandhi et al. (2000) found that 68% of specialists reported receiving no information from the primary care provider prior to referral visits, and 25% of primary care providers had still not received any information from specialists 4 weeks after referral visits. In another study of 963 referrals (Forrest, 2000), pediatricians scheduled appointments with specialists for only 39% and sent patient information to the specialists in only 51% of the time.

In a 2006 report to Congress, MedPAC found that care coordination programs improved quality of care for patients, reduced hospitalizations, and improved adherence to evidence-based care guidelines, especially among patients with diabetes and CHD. Associations with cost-savings were less clear; this was attributed to how well the intervention group was chosen and defined, as well as the intervention put in place. Additionally, cost-savings were usually calculated in the short-term, while some argue that the greatest cost-savings accrue over time (MedPAC, 2006).

Improved mechanisms for information exchange could facilitate communication between providers, whether for time-limited referrals or consultations, on-going co-management, or during care transitions. For example, a study by Branger et al. (1999) found that an electronic communication network that linked the computer-based patient records of physicians who had shared care of patients with diabetes significantly increased frequency of communications between physicians and availability of important clinical data. There was a 3-fold increase in the likelihood that the specialist provided written communication of results if the primary care physician scheduled appointments and sent patient information to the specialist (Forrest, 2000).

Care coordination is a focal point in the current health care reform and our nation's ambulatory health information technology (HIT) framework. The National Priorities Partnership recently highlighted care coordination as one of the most critical areas for development of quality measurement and improvement (NPP, 2008).

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**MIPS #402: Tobacco Use and Help with Quitting Among Adolescents – National Quality Strategy
Domain: Community / Population Health**

Measure Type: Process

DESCRIPTION:

The percentage of adolescents 12 to 20 years of age with a primary care visit during the measurement year for whom tobacco use status was documented and received help with quitting if identified as a tobacco user

INSTRUCTIONS:

This measure is to be submitted **once per reporting period** for patients seen during the reporting period. This measure is intended to reflect the quality of services provided for preventive screening for tobacco use.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 12-20 years with a visit during the measurement period.

Denominator Criteria (Eligible Cases):

Patients aged 12-20 years on date of encounter

AND

Patient encounter during the performance period (CPT): 90791, 90792, 90832, 90834, 90837, 90839, 90845, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99406, 99407, G0438, G0439

NUMERATOR: Patients who were screened for tobacco use at least once within 18 months (during the measurement period or the six months prior to the measurement period) **AND** who received tobacco cessation counseling intervention if identified as a tobacco user

Definitions:

Tobacco Use Status – Any documentation of smoking or tobacco use status, including 'never' or 'non-use'.

Tobacco User – Any documentation of active or current use of tobacco products, including smoking.

NUMERATOR NOTE: *In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation counseling report G9460.*

Numerator Options:

Performance Met:

Patient documented as tobacco user AND received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user **(G9458)**

OR

Performance Met:

Currently a tobacco non-user **(G9459)**

OR

Performance Not Met:

Tobacco assessment OR tobacco cessation intervention not performed, reason not given **(G9460)**

RATIONALE:

This measure is intended to promote adolescent tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

The U.S. Preventive Services Task Force recommends that primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents. (Strength of Recommendation = B) (U.S. Preventive Services Task Force, 2013)

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

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The National Committee for Quality Assurance (NCQA) owned and developed Tobacco Use and Help with Quitting Among Adolescents measure specifications are copied and found in the CMS Quality Payment Program website at <https://qpp.cms.gov/about/resource-library>

Appendix A: Instructions for Using AAAAI Codes in the QCDR Registry

What are Custom Codes?

Custom codes are codes created for the purposes of addressing required measure criteria that are not codified. They are no different than ICD10, CPT, HCPCS, CPT2, or other standardized codes, except that they are unique to the specific measure in which they are used. All custom codes will use the value “CPT” for the coding system.

Custom codes are used in three ways:

- 1) Additional Criteria– To verify the presence of a non-codified condition that is required for measure denominator/numerator eligibility.
- 2) Denominator Exclusion – To identify a non-codified condition that excludes a patient or encounter from the measure denominator.
- 3) Numerator Attestation – To attest to the performance of a non-codified quality clinical action that meets the numerator or performance-exception requirements.

The 2022 AAAAI QCDR has measures that demonstrate condition codes as Additional Criteria and Numerator Attestation. There are no measures that use condition codes for Denominator Exclusion.

Example of an Additional Criteria Code

AAAAI Custom Measure #8: *Achievement of Projected Effective Dose of Standardized Allergens for Patient Treated with Allergen Immunotherapy for at Least One Year* features an example a custom code that is required for denominator eligibility. In the measure specification there is a condition that is not codified:

AAAAI8: Achievement of Projected Effective Dose of Standardized Allergens for Patient Treated With Allergen Immunotherapy for at Least One Year – National Quality Strategy
Domain: Effective Clinical Care

DENOMINATOR:

All patients aged 5 years and older who received subcutaneous allergen immunotherapy for at least one year containing at least one standardized antigen

Denominator Criteria (Eligible Cases):

Patients aged 5 years and older on the date of the encounter

AND

Professional Services for Allergen Immunotherapy (CPT): 95115, 95117, 95120, 95125, 95144, 95165

AND

Patient Encounter during the Reporting Period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

AND

Patients receiving subcutaneous allergen immunotherapy containing at least one standardized extract (cat, dust mite, grass, bermuda, or short ragweed) for 1 year

When completing the upload template, a custom code (AAAAI_8.DEN.1.YES) will be entered to attest that the non-codified criteria is documented in the medical record. If the code is not sent, the patient will not be eligible for AAAAI Custom Measure #8.

Using the Upload Template*

| PATIENT_ID | PAYOR | PLACE_OF_SERVICE | ACTIVITY_DATE | ACTIVITY_END_DATE | CODING_SYSTEM | CODE |
|------------|-------|------------------|---------------|-------------------|---------------|---|
| TEST1 | | | 2018-01-01 | | CPT | 95115 → Immunotherapy visit |
| TEST1 | | | 2018-01-01 | | CPT | 99201 → Patient encounter |
| TEST1 | | | 2018-01-01 | | CPT | AAAAI_8.DEN.1.YES → Custom code indicating standardized extract |

*NOTE: This document uses examples of a portion of the upload template for purposes of custom code demonstration. Please use the full template available in the 'Resources' section of the QCDR application.

Example of Numerator Attestation Codes

AAAAI6: Documentation of Clinical Response to Allergen Immunotherapy within One Year – National Quality Strategy Domain: Communication and Care Coordination

NUMERATOR:

Patients who were evaluated for clinical improvement and efficacy at least once within the first year of treatment with assessment documented in the medical record

Numerator Options:

Performance Met:

The patient was assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment and assessment was documented in medical record

OR

Performance Not Met:

The patient **was not** assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment and/or assessment was **not** documented in medical record

AAAAI Custom Measure #6: *Documentation of Clinical Response to Allergen Immunotherapy within One Year* features an example of custom codes that are used to report the patient as 'numerator-met' or 'numerator not-met' for the measure.

Sending the custom codes will attest that the patient was either assessed and documented for clinical improvement and efficacy at least one within 12 months of initiating allergen immunotherapy or not assessed and/or not documented for clinical improvement and efficacy at least one within 12 months of initiating allergen immunotherapy.

Below are examples of upload templates demonstrating how to use the custom code to meet or not meet the numerator.

Using the Upload Template (with numerator-met code):

| PATIENT_ID | PAYOR | PLACE_OF_SERVICE | ACTIVITY_DATE | ACTIVITY_END_DATE | CODING_SYSTEM | CODE |
|------------|-------|------------------|---------------|-------------------|---------------|--|
| TEST2 | | | 2018-01-01 | | CPT | 95165 → Immunotherapy visit |
| TEST2 | | | 2018-01-01 | | CPT | 99201 → Patient encounter |
| TEST2 | | | 2018-01-01 | | CPT | AAAAI_16.DEN.1.YES → Initiated during the reporting period |
| TEST2 | | | 2018-01-01 | | CPT | AAAAI_16.NUMER.1.YES → Numerator performance MET |

Using the Upload Template (with numerator not-met code):

| PATIENT_ID | PAYOR | PLACE_OF_SERVICE | ACTIVITY_DATE | ACTIVITY_END_DATE | CODING_SYSTEM | CODE |
|------------|-------|------------------|---------------|-------------------|---------------|--|
| TEST2 | | | 2018-01-01 | | CPT | 95165 → Immunotherapy visit |
| TEST2 | | | 2018-01-01 | | CPT | 99201 → Patient encounter |
| TEST2 | | | 2018-01-01 | | CPT | AAAAI_16.DEN.1.YES → Initiated during the reporting period |
| TEST2 | | | 2018-01-01 | | CPT | AAAAI_16.NUMER.1.NO → Numerator performance NOT MET |

Appendix B: AAAAI Code Table for QCDR Registry

| Measure(s) | Quality Code | Description |
|---|---|---|
| MIPS 110, 128, 226, 317, 331, 332, 333, 334 | 1) QPP.TELEHEALTH | 1) This encounter is a telehealth encounter. |
| MIPS 398 | 1) 398.DEN.1.YES 2) 398.DEN.2.YES | 1) The patient had at least 2 visits (specifically for asthma) in the reporting period or in the year prior to the reporting period. 2) The patient expired prior to the end of the reporting year OR patient is a permanent nursing home resident OR patient was in hospice or receiving palliative care services at any time during the reporting year. |
| AAAAI 6 | 1) AAAAI_6.DEN.1.YES 2) AAAAI_6.DEN.2.YES 3) AAAAI_6.NUMER.1.YES 4) AAAAI_6.NUMER.2.NO | 1) The patient initiated allergen immunotherapy in the previous reporting period. 2) The patient, at any point, discontinued the allergen immunotherapy regimen in the twelve months after initiation. 3) It is documented that the patient was assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment. 4) It is NOT documented that the patient was assessed for clinical improvement and efficacy at least once within 12 months of initiating allergen immunotherapy treatment. |
| AAAAI 8 | 1) AAAAI_8.DEN.1.YES 2) AAAAI_8.NUMER.1.YES 3) AAAAI_8.NUMER.2.YES 4) AAAAI_8.NUMER.3.YES 5) AAAAI_8.NUMER.4.YES 6) AAAAI_8.NUMER.5.NO | 1) The patient is receiving subcutaneous allergen immunotherapy containing at least one standardized extract (cat, dust mite, grass, bermuda, or short ragweed) for 1 year. 2) The patient achieved the projected dose of all applicable standardized extracts included in prescription. 3) There is documentation of medical reasons for not achieving the projected effective dose such as local or systemic reactions, interruptions in therapy due to co-morbid conditions (e.g. pregnancy) or patient intolerance to the projected effective dose. 4) There is documentation of patient reason(s) for not achieving the projected effective dose such as interruptions in therapy due to noncompliance. 5) The patient receiving allergen immunotherapy prescribed and prepared by eligible professional by an outside entity (providing supervision only). 6) Projected effective dose of all applicable standardized extracts was not achieved, reason not otherwise specified. |
| AAAAI 17 | 1) AAAAI_17.DEN.1.YES 2) AAAAI_17.NUMER.1.YES 3) AAAAI_17.NUMER.2.YES 4) AAAAI_17.NUMER.3.YES 5) AAAAI_17.NUMER.4.YES | 1) It is documented that the patient's asthma is not well-controlled during the reporting period based on an ACT, ACQ or ATAQ score, AND there was a subsequent patient encounter during the reporting period with documented completion of the same asthma assessment patient-completed questionnaire (ACT, ACQ or ATAQ). 2) MID improvement demonstrated, increase in score by ≥ 3 points on the ACT. |

| Measure(s) | Quality Code | Description |
|------------|---|--|
| | 6) AAAAI_17.NUMER.5.YES 7) AAAAI_17.NUMER.6.NO | 3) MID improvement demonstrated, decrease in score by ≥ 0.5 points on the ACQ. 4) MID improvement demonstrated, decrease in score by ≥ 1 point on the ATAQ. 5) Medical reason(s) for patient not demonstrating MID improvement (e.g., respiratory infection within 4 weeks of follow-up visit). 6) Patient reasons for not demonstrating MID improvement (eg, patients with poor adherence to controller therapy as determined by self-report or pharmacy records (per cent of days covered < 50 %)). 7) MID improvement NOT demonstrated, reason not otherwise specified. |
| AAAAI 18 | 1) AAAAI_18.NUMER.1.YES 2) AAAAI_18.NUMER.2.YES 3) AAAAI_18.NUMER.3.YES 4) AAAAI_18.NUMER.4.NO | 1) Patient underwent elective skin testing or penicillin challenge AND had the penicillin or ampicillin/amoxicillin allergy label removed from the medical record if results were negative or confirmed in the medical record if results were positive 2) Medical reason(s) for not documenting and reviewing (eg, previous positive penicillin skin test, patients with severe anaphylaxis to penicillin within the past 5 years, patients with penicillin reaction histories consistent with severe non-IgE-mediated reactions, significant comorbid disease and patients unable to discontinue medications with antihistaminic effects or beta-blockers) 3) Patient reason(s) for not documenting and reviewing results (eg, patients who decline or are non-adherent with skin testing/challenge recommendations) 4) Patient did NOT undergo elective skin testing/penicillin challenge and did not have the penicillin or ampicillin/amoxicillin allergy label removed or confirmed on the medical record, reason not otherwise specified |