

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

**2018 OPTIONS FOR INDIVIDUAL MEASURES:**  
**REGISTRY ONLY**

**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 submitted a minimum of **once per performance period** for all patients with a diagnosis of asthma seen during the performance period. This measure may be submitted by eligible 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 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.

**This measure will be calculated with 7 performance rates:**

1. Overall Percentage for patients (aged 5-50 years) 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 18-50 years) with well-controlled asthma, without elevated risk of exacerbation.
4. Asthma well-controlled (submit the most recent specified asthma control tool result ) for patients 5 to 17 with Asthma
5. Asthma well-controlled (submit the most recent specified asthma control tool result ) for patients 18 to 50 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 to 50 with Asthma

**DENOMINATOR (SUBMISSION 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):** J45.20, 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 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, 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 patient's submitted 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 (SUBMISSION CRITERIA 2):**

Patients ages 18 to 50 with asthma

**Denominator Criteria (Eligible Cases) 2:**

Patients aged 18-50 years

**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 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, 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
- 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 patient's submitted 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.

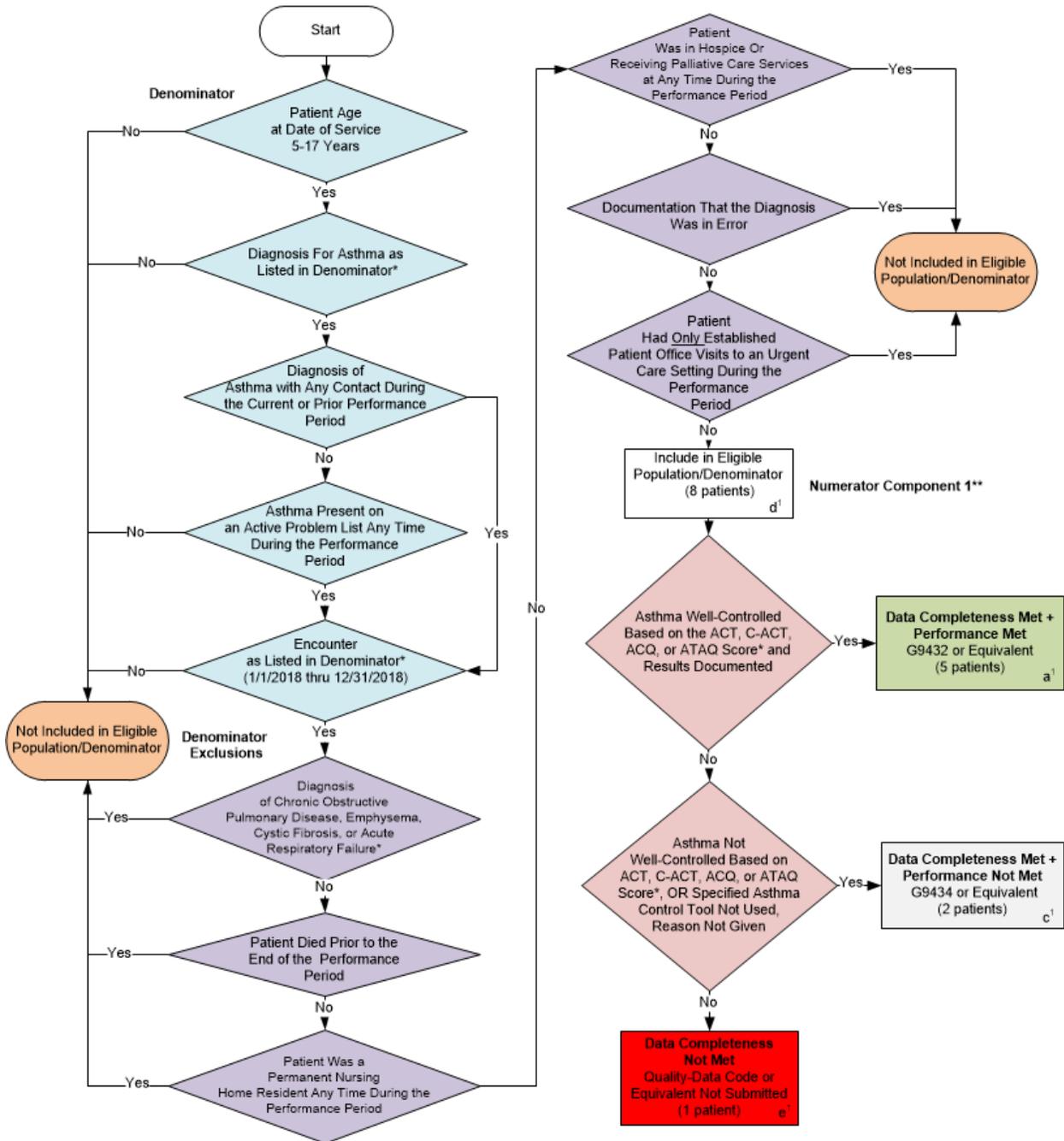
The Asthma Control Questionnaire (ACQ) is a validated, self-administered survey available in various formats from the developer, Elizabeth F. Juniper, MCSP, MSc. [Link to ACQ Survey](#)

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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## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control Submission Criteria One



\*See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*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.

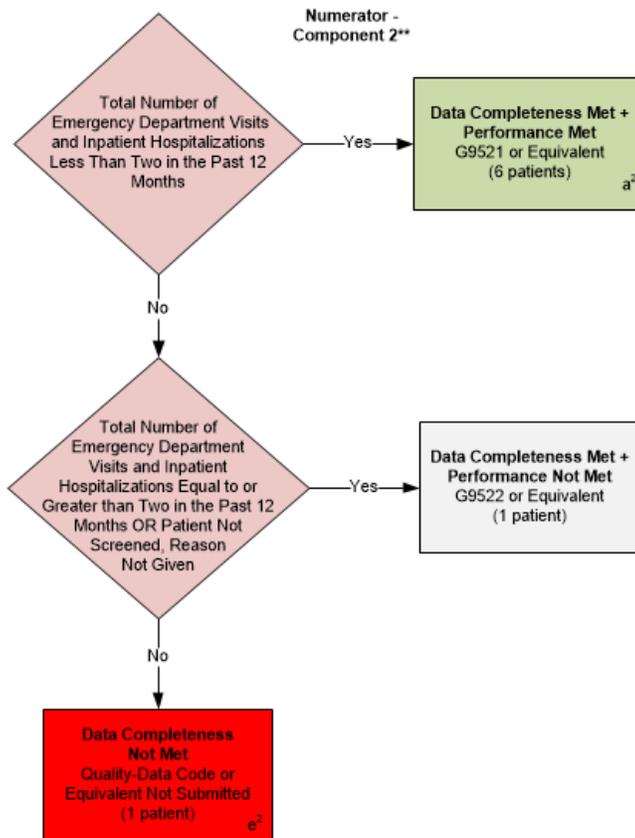
\*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.

NOTE: Submission Frequency: Patient-process

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

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## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control



\*See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*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.

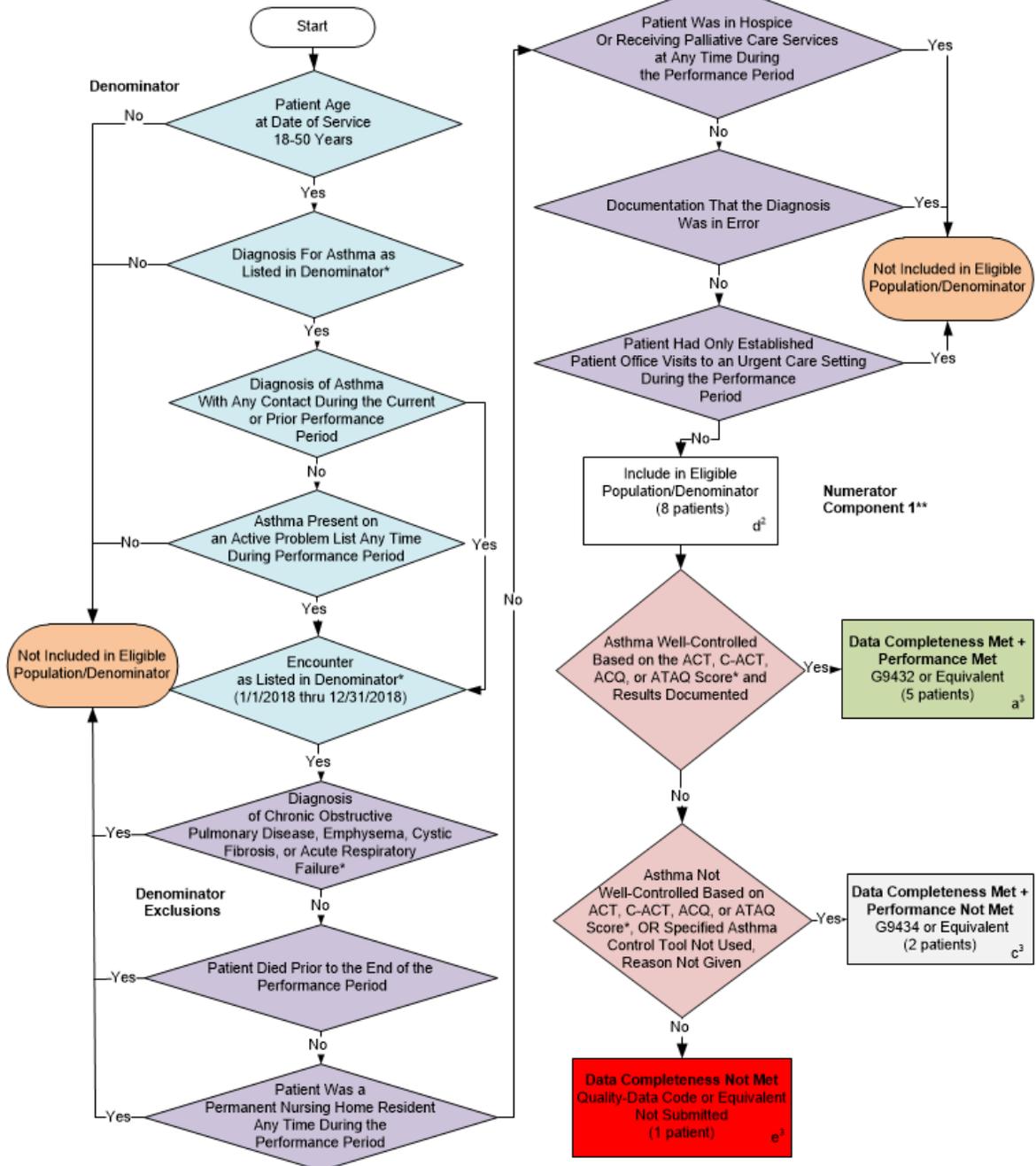
\*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.

NOTE: Submission Frequency: Patient-process

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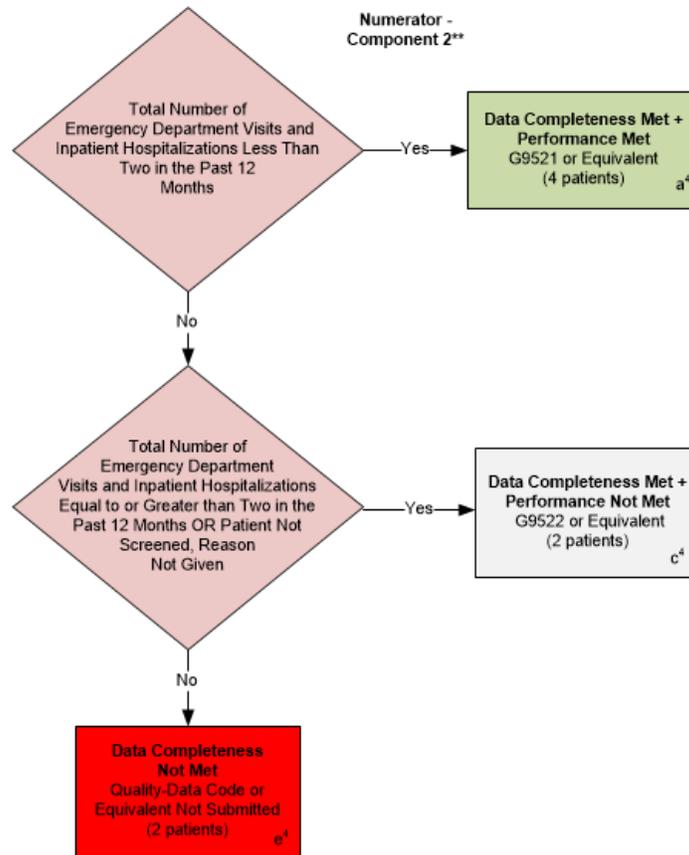
## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control Submission Criteria Two



\*See the posted Measure Specification for specific coding and instructions to submit this measure.  
 \*\*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.  
 \*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.  
 NOTE: Submission Frequency: Patient-process

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## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control



\*See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*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.

\*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.

\*\*\*\*It is anticipated for registry submission that for every performance rate, data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate

NOTE: Submission Frequency: Patient-process

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## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control

Data Completeness Criteria 1	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8
Numerator Component 1	Met (a <sup>1</sup> )	Met (a <sup>1</sup> )	Met (a <sup>1</sup> )	Met (a <sup>1</sup> )	Met (a <sup>1</sup> )	Not Met (c <sup>1</sup> )	Not Met (c <sup>1</sup> )	Not Reported (e <sup>1</sup> )
Numerator Component 2	Met (a <sup>2</sup> )	Met (a <sup>2</sup> )	Met (a <sup>2</sup> )	Met (a <sup>2</sup> )	Met (a <sup>2</sup> )	Met (a <sup>2</sup> )	Not Met (c <sup>2</sup> )	Not Reported (e <sup>2</sup> )
Data Completeness Criteria 2	Patient 9	Patient 10	Patient 11	Patient 12	Patient 13	Patient 14	Patient 15	Patient 16
Numerator Component 1	Met (a <sup>3</sup> )	Not Met (c <sup>3</sup> )	Met (a <sup>3</sup> )	Met (a <sup>3</sup> )	Met (a <sup>3</sup> )	Met (a <sup>3</sup> )	Not Met (c <sup>3</sup> )	Not Reported (e <sup>3</sup> )
Numerator Component 2	Met (a <sup>4</sup> )	Not Met (c <sup>4</sup> )	Met (a <sup>4</sup> )	Not Reported (e <sup>4</sup> )	Met (a <sup>4</sup> )	Met (a <sup>4</sup> )	Not Met (c <sup>4</sup> )	Not Reported (e <sup>4</sup> )

### SAMPLE CALCULATIONS: Data Completeness One\*\*\*\*

Data Completeness=  

$$\frac{\text{Performance Met (a}^1\text{=5 patients) + Performance Not Met (c}^1\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^1\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

### SAMPLE CALCULATIONS: Data Completeness Two\*\*\*\*

Data Completeness=  

$$\frac{\text{Performance Met (a}^2\text{=6 patients) + Performance Not Met (c}^2\text{=1 patients)}}{\text{Eligible Population / Denominator (d}^2\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

### SAMPLE CALCULATIONS: Data Completeness Three\*\*\*\*

Data Completeness=  

$$\frac{\text{Performance Met (a}^3\text{=5 patients) + Performance Not Met (c}^3\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^3\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

### SAMPLE CALCULATIONS: Data Completeness Four\*\*\*\*

Data Completeness=  

$$\frac{\text{Performance Met (a}^4\text{=4 patients) + Performance Not Met (c}^4\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^4\text{=8 patients)}} = \frac{6 \text{ patients}}{8 \text{ patients}} = 75.00\%$$

### SAMPLE CALCULATION: Performance Rate One: Overall Percentage for patients (aged 5-50 years) with well-controlled asthma, without elevated risk of exacerbation

Submission Criteria 1 and 2:  
 Performance Rate=  

$$\frac{\text{Performance Met (a=9 patients)}}{\text{Data Completeness Numerator (13 patients)}} = \frac{9 \text{ patients}}{13 \text{ patients}} = 69.23\%$$

See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*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.

\*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.

\*\*\*\*It is anticipated for registry submission that for every performance rate, data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate

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## 2018 Registry Flow for Quality ID #398: Optimal Asthma Control

### SAMPLE CALCULATION: Performance Rate Two: Percentage of pediatric patients (aged 5-17 years) with well-controlled asthma, without elevated risk of exacerbation

Submission Criteria 1, Component 1 and 2:

Performance Rate=

Performance Met (a=5 patients) =  $\frac{5 \text{ patients}}{7 \text{ patients}}$  = 71.43%

Data Completeness Numerator (7 patients) = 7 patients

### SAMPLE CALCULATION: Performance Rate Three: Percentage of adult patients (aged 18-50 years) with well-controlled asthma, without elevated risk of exacerbation

Submission Criteria 2, Component 1 and 2:

Performance Rate=

Performance Met (a=4 patients) =  $\frac{4 \text{ patients}}{6 \text{ patients}}$  = 66.67%

Data Completeness Numerator (6 patients) = 6 patients

### SAMPLE CALCULATION: Performance Rate Four: Asthma well-controlled (take the most recent tool result) for patients 5 to 17 with Asthma

Submission Criteria 1, Component 1:

Performance Rate=

Performance Met (a<sup>2</sup>=5 patients) =  $\frac{5 \text{ patients}}{7 \text{ patients}}$  = 71.43%

Data Completeness Numerator (7 patients) = 7 patients

### SAMPLE CALCULATION: Performance Rate Five: Asthma well-controlled (take the most recent tool result) for patients 18 to 50 with Asthma

Submission Criteria 2, Component 1:

Performance Rate=

Performance Met (a<sup>2</sup>=5 patients) =  $\frac{5 \text{ patients}}{7 \text{ patients}}$  = 71.43%

Data Completeness Numerator (7 patients) = 7 patients

### SAMPLE CALCULATION: Performance Rate Six: Patient not at elevated risk of exacerbation for patients 5 to 17 with Asthma

Submission Criteria 1, Component 2:

Performance Rate=

Performance Met (a<sup>2</sup>=6 patients) =  $\frac{6 \text{ patients}}{7 \text{ patients}}$  = 85.71%

Data Completeness Numerator - (7 patients) = 7 patients

### SAMPLE CALCULATION: Performance Rate Seven: Patient not at elevated risk of exacerbation for patients 18 to 50 with Asthma

Submission Criteria 2, Component 2:

Performance Rate=

Performance Met (a<sup>4</sup>=4 patients) =  $\frac{4 \text{ patients}}{6 \text{ patients}}$  = 66.67%

Data Completeness Numerator (6 patients) = 6 patients

See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\*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.

\*\*\*This measure should be calculated with 7 Performance Rates. Review the Sample Calculation to ensure the data completeness and performance rates are calculated accurately.

NOTE: Submission Frequency: Patient-process

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**2018 Registry Flow For Quality ID  
#398: Optimal Asthma Control  
This Measure Requires Submitting of Seven Performance Rates**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

**Submission Criteria 1:**

1. Start with Denominator
2. Check Patient Age:
  - a. If the Age is 5 thru 17 years of age at Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
  - b. If the Age is 5 thru 17 years of age at Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
  - a. If Diagnosis of Asthma as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Diagnosis of Asthma as Listed in the Denominator equals Yes, proceed to check Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period.
4. Check Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period:
  - a. If Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period equals Yes, proceed to check Established Patient Office Visit Performed.
  - b. If Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period equals No, proceed to check Patient had Asthma Present on an Active Problem List Any Time During the Performance Period.
5. Patient had Asthma Present on an Active Problem List Any Time During the Performance Period:
  - a. If Patient had Asthma Present on an Active Problem List Any Time During the Performance Period equals Yes, proceed to check Established Patient Office Visit Performed.
  - b. If Patient had Asthma Present on an Active Problem List Any Time During the Performance Period equals No, do not include in Eligible Patient Population. Stop Processing.
6. Check Established Patient Office Visit Performed:
  - a. If Established Patient Office Visit as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Established Patient Office Visit as Listed in the Denominator equals Yes, proceed to check Other Patient Diagnosis.
7. Check Other Patient Diagnosis:

- a. If Patient Diagnosis of Chronic Obstructive Pulmonary Disease, Emphysema, Cystic Fibrosis or Acute Respiratory Failure as Listed in Denominator equals No, proceed to check Patient Died Prior to the End of the Performance Period.
  - b. If Chronic Obstructive Pulmonary Disease, Emphysema, Cystic Fibrosis or Acute Respiratory Failure as Listed in Denominator equals Yes, do not include in Eligible Patient Population. Stop Processing
8. Check Patient Died Prior to the End of the Performance Period:
- a. If Patient Died Prior to the End of the Performance Period equals No, proceed to check Patient was a Permanent Nursing Home Resident Any Time During the Performance Period.
  - b. If Patient Died Prior to the End of the Performance Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
9. Check Patient was a Permanent Nursing Home Resident Any Time During the Performance Period:
- a. If Patient was a Permanent Nursing Home Resident Any Time During the Performance Period equals No, proceed to check Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Measurement Period.
  - b. If Patient was a Permanent Nursing Home Resident Any Time During the Performance Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
10. Check Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Performance Period:
- a. If Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Performance Period equals No, proceed to check Documentation that the Diagnosis was in Error.
  - b. If Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Performance Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
11. Check Documentation that the Diagnosis was in Error:
- a. If Patient has Documentation that the Diagnosis was in Error equals No, proceed to check Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period.
  - b. If Patient has Documentation that the Diagnosis was in Error equals Yes, do not include in the Eligible Population. Stop Processing.
12. Check Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period:
- a. If Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period equals No, proceed to include in the Eligible Population.
  - b. If Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period equals Yes, do not include in the Eligible Population. Stop Processing.
13. Denominator Population:
- a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d<sup>1</sup> equals 8 patients in the Sample Calculation.

14. Start Numerator Component 1- 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.
15. Check Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented:
  - a. If Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a<sup>1</sup> equals 5 patients in the Sample Calculation.
  - c. If Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented equals No, proceed to check Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given.
16. Check Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given:
  - a. If Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c<sup>1</sup> equals 2 patients in the Sample Calculation.
  - c. If Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given equals No, proceed to Data Completeness Not Met.
17. Check Data Completeness Not Met:
  - a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. Letter e<sup>1</sup> equals 1 patient has been subtracted from the Data Completeness Numerator in the Sample Calculation.
18. Start Numerator Component 2 - 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
19. Check Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months:
  - a. If Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter a<sup>2</sup> equals 6 patients in the Sample Calculation.
  - c. If Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months equals No, proceed to check 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.

20. Check 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:
- If 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 equals Yes, include in Data Completeness Met and Performance Not Met.
  - Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c<sup>2</sup> equals 1 patient in the Sample Calculation.
  - If 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 equals No, proceed to Data Completeness Not Met.
21. Check Data Completeness Not Met:
- If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. Letter e<sup>2</sup> equals 1 patient has been subtracted from the Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATIONS: Data Completeness One\*\*\*\***

**Data Completeness=**

$$\frac{\text{Performance Met (a}^1\text{=5 patients) + Performance Not Met (c}^1\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^1\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**SAMPLE CALCULATIONS: Data Completeness Two\*\*\*\***

**Data Completeness=**

$$\frac{\text{Performance Met (a}^2\text{=6 patients) + Performance Not Met (c}^2\text{=1 patients)}}{\text{Eligible Population / Denominator (d}^1\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**SAMPLE CALCULATIONS: Data Completeness Three\*\*\*\***

**Data Completeness=**

$$\frac{\text{Performance Met (a}^3\text{=5 patients) + Performance Not Met (c}^3\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^2\text{=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**SAMPLE CALCULATIONS: Data Completeness Four\*\*\*\***

**Data Completeness=**

$$\frac{\text{Performance Met (a}^4\text{=4 patients) + Performance Not Met (c}^4\text{=2 patients)}}{\text{Eligible Population / Denominator (d}^2\text{=8 patients)}} = \frac{6 \text{ patients}}{8 \text{ patients}} = 75.00\%$$

**SAMPLE CALCULATION: Performance Rate One: Overall Percentage for patients (aged 5-50 years) with well-controlled asthma, without elevated risk of exacerbation**

**Submission Criteria 1 and 2:**

**Performance Rate=**

$$\frac{\text{Performance Met (a=9 patients)}}{\text{Data Completeness Numerator (13 patients)}} = \frac{9 \text{ patients}}{13 \text{ patients}} = 69.23\%$$

**SAMPLE CALCULATION: Performance Rate Two: Percentage of pediatric patients (aged 5-17 years) with well-controlled asthma, without elevated risk of exacerbation**

**Submission Criteria 1, Component 1 and 2:**

**Performance Rate=**

Performance Met (a=5 patients) \_\_\_\_\_ = 5 patients = 71.43%

Data Completeness Numerator (7 patients) = 7 patients

**SAMPLE CALCULATION: Performance Rate Four: Asthma well-controlled (take the most recent- tool result) for patients 5 to 17 with Asthma**

**Submission Criteria 1, Component 1:**

**Performance Rate=**

Performance Met (a<sup>1</sup>=5 patients) \_\_\_\_\_ = 5 patients = 71.43%

Data Completeness Numerator (7 patients) = 7 patients

**SAMPLE CALCULATION: Performance Rate Six: Patient not at elevated risk of exacerbation for patients 5 to 17 with Asthma**

**Submission Criteria 1, Component 2:**

**Performance Rate=**

Performance Met (a<sup>2</sup>=6 patients) \_\_\_\_\_ = 6 patients = 85.71%

Data Completeness Numerator - (7 patients) = 7 patients

**2018 Registry Flow For Quality ID  
#398: Optimal Asthma Control**

**This Measure Requires Data Completeness of Seven Performance Rates**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

**Submitting Criteria 2:**

1. Start with Denominator
2. Check Patient Age:
  - a. If the Age is 18 thru 50 years of age at Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
  - b. If the Age is 18 thru 50 years of age at Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
  - a. If Diagnosis of Asthma as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Diagnosis of Asthma as Listed in the Denominator equals Yes, proceed to check Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period.
4. Check Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period:
  - a. If Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period equals Yes, proceed to check Established Patient Office Visit Performed.
  - b. If Patient had a Diagnosis of Asthma With any Contact During the Current or Prior Performance Period equals No, proceed to check Patient had Asthma Present on an Active Problem List Any Time During the Performance Period.
5. Patient had Asthma Present on an Active Problem List Any Time During the Performance Period:
  - a. If Patient had Asthma Present on an Active Problem List Any Time During the Performance Period equals Yes, proceed to check Established Patient Office Visit Performed.
  - b. If Patient had Asthma Present on an Active Problem List Any Time During the Performance Period equals No, do not include in Eligible Patient Population. Stop Processing.
6. Check Established Patient Office Visit Performed:
  - a. If Established Patient Office Visit as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Established Patient Office Visit as Listed in the Denominator equals Yes, proceed to check Other Patient Diagnosis.
7. Check Other Patient Diagnosis:

- a. If Patient Diagnosis of Chronic Obstructive Pulmonary Disease, Emphysema, Cystic Fibrosis or Acute Respiratory Failure as Listed in Denominator equals No, proceed to check Patient Died Prior to Performance Period.
  - b. If Chronic Obstructive Pulmonary Disease, Emphysema, Cystic Fibrosis or Acute Respiratory Failure as Listed in Denominator equals Yes, do not include in Eligible Patient Population. Stop Processing
8. Check Patient Died Prior to the End of the Performance Period:
- a. If Patient Died Prior to the End of the Period equals No, proceed to check Patient was a Permanent Nursing Home Resident Any Time During the Performance Period.
  - b. If Patient Died Prior to the End of the Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
9. Check Patient was a Permanent Nursing Home Resident Any Time During the Performance Period:
- a. If Patient was a Permanent Nursing Home Resident Any Time During the Performance Period equals No, proceed to check Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Measurement Period.
  - b. If Patient was a Permanent Nursing Home Resident Any Time During the Performance Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
10. Check Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Measurement Period:
- a. If Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Measurement Period equals No, proceed to Patient has Documentation that the Diagnosis was in Error.
  - b. If Patient was in Hospice or Receiving Palliative Care Services at Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
11. Check Patient has Documentation that the Diagnosis was in Error:
- a. If Patient has Documentation that the Diagnosis was in Error equals No, proceed to Patient had only Established Patient Office Visits.
  - b. If Patient has Documentation that the Diagnosis was in Error equals Yes, do not proceed to include in the Eligible Population. Stop Processing.
12. Check Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period:
- a. If Patient had only Established Patient Office Visits to an Urgent Care Setting During the Performance Period equals No, proceed to include in the Eligible Population.
  - b. If Patient had only established Patient Office Visits to an Urgent Care Setting During the Performance Period equals Yes, do not proceed to include in the Eligible Population. Stop Processing.
13. Denominator Population:
- a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d<sup>2</sup> equals 8 Patients in the Sample Calculation.

14. Start Numerator Component 1- 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.
15. Check Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented:
  - a. If Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a<sup>3</sup> equals 5 Patients in the Sample Calculation.
  - c. If Asthma Well-Controlled Based on the ACT, C-ACT, ACQ, or ATAQ Score and Results Documented equals No, proceed to check Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given.
16. Check Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given:
  - a. If Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c<sup>3</sup> equals 2 Patients in the Sample Calculation.
  - c. If Asthma Not Well Controlled Based on ACT, C-ACT, ACQ, or ATAQ Score or Specified Asthma Control Tool Not Used, Reason Not Given equals No, proceed to Data Completeness Not Met.
17. Check Data Completeness Not Met:
  - a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. Letter e<sup>3</sup> equals 1 Patient has been subtracted from the Data Completeness Numerator in the Sample Calculation.
18. Start Numerator Component 2 - 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.
19. Check Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months:
  - a. If Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a<sup>4</sup> equals 4 Patients in the Sample Calculation.
  - c. If Total Number of Emergency Department Visits and Inpatient Hospitalizations Less Than Two in the Past 12 Months equals No, proceed to check 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.

20. Check 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:
- If 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 equals Yes, include in Data Completeness Met and Performance Not Met.
  - Data Completeness Met and Performance Not Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c<sup>4</sup> equals 2 Patients in the Sample Calculation.
  - If 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 equals No, proceed to Data Completeness Not Met.
21. Check Data Completeness Not Met:
- If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. Letter e<sup>4</sup> equals 2 Patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATION: Performance Rate One: Overall Percentage for patients (aged 5-50 years) with well-controlled asthma, without elevated risk of exacerbation**

**Submission Criteria 1 and 2:**

**Performance Rate=**

$$\frac{\text{Performance Met (a=9 patients)}}{\text{Data Completeness Numerator (13 patients)}} = \frac{9 \text{ patients}}{13 \text{ patients}} = 69.23\%$$

**SAMPLE CALCULATION: Performance Rate Three: Percentage of adult patients (aged 18-50 years) with well-controlled asthma, without elevated risk of exacerbation**

**Submission Criteria 2, Component 1 and 2:**

**Performance Rate=**

$$\frac{\text{Performance Met (a=4 patients)}}{\text{Data Completeness Numerator (6 patients)}} = \frac{4 \text{ patients}}{6 \text{ patients}} = 66.67\%$$

**SAMPLE CALCULATION: Performance Rate Five: Asthma well-controlled (take the most recent tool result) for patients 18 to 50 with Asthma**

**Submission Criteria 2, Component 1:**

**Performance Rate=**

$$\frac{\text{Performance Met (a=5 patients)}}{\text{Data Completeness Numerator (7 patients)}} = \frac{5 \text{ patients}}{7 \text{ patients}} = 71.43\%$$

Sample Calculations:

1. Patient 1
  - a. Patient 1 met Numerator component 1 (represented by  $a^1$ )
  - b. Patient 1 met Numerator component 2 (represented by  $a^2$ )
2. Patient 2
  - a. Patient 2 met Numerator component 1 (represented by  $a^1$ )
  - b. Patient 2 met Numerator component 2 (represented by  $a^2$ )
3. Patient 3
  - a. Patient 3 met Numerator component 1 (represented by  $a^1$ )
  - b. Patient 3 met Numerator component 2 (represented by  $a^2$ )
4. Patient 4
  - a. Patient 4 met Numerator component 1 (represented by  $a^1$ )
  - b. Patient 4 met Numerator component 2 (represented by  $a^2$ )
5. Patient 5
  - a. Patient 5 met Numerator component 1 (represented by  $a^1$ )
  - b. Patient 5 met Numerator component 2 (represented by  $a^2$ )
6. Patient 6
  - a. Patient 6 did not meet Numerator component 1 (represented by  $c^1$ )
  - b. Patient 6 met Numerator component 2 (represented by  $a^2$ )
7. Patient 7
  - a. Patient 7 did not meet Numerator component 1 (represented by  $c^1$ )
  - b. Patient 7 did not meet Numerator component 2 (represented by  $c^2$ )
8. Patient 8
  - a. Patient 8 not submitted for Numerator component 1 (represented by  $e^1$ )
  - b. Patient 8 not submitted for Numerator component 2 (represented by  $e^2$ )
9. Patient 9
  - a. Patient 9 met Numerator component 1 (represented by  $a^3$ )
  - b. Patient 9 met Numerator component 2 (represented by  $a^4$ )
10. Patient 10

- a. Patient 10 did not meet Numerator component 1 (represented by c<sup>3</sup>)
  - b. Patient 10 did not meet Numerator component 2 (represented by c<sup>4</sup>)
11. Patient 11
- a. Patient 11 met Numerator component 1 (represented by a<sup>3</sup>)
  - b. Patient 11 met Numerator component 2 (represented by a<sup>4</sup>)
12. Patient 12
- a. Patient 12 met for Numerator component 1 (represented by a<sup>3</sup>)
  - b. Patient 12 not submitted for Numerator component 2 (represented by e<sup>4</sup>)
13. Patient 13
- a. Patient 13 met Numerator component 1 (represented by a<sup>3</sup>)
  - b. Patient 13 met Numerator component 2 (represented by a<sup>4</sup>)
14. Patient 14
- a. Patient 14 met for Numerator component 1 (represented by a<sup>3</sup>)
  - b. Patient 14 met Numerator component 2 (represented by a<sup>4</sup>)
15. Patient 15
- a. Patient 15 did not meet Numerator component 1 (represented by c<sup>3</sup>)
  - b. Patient 15 did not meet Numerator component 2 (represented by c<sup>4</sup>)
16. Patient 16
- a. Patient 16 not submitted for Numerator component 1 (represented by e<sup>3</sup>)
  - b. Patient 16 not submitted for Numerator component 2 (represented by e<sup>4</sup>)