Quality ID #333: Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)
– National Quality Strategy Domain: Efficiency and Cost Reduction
– Meaningful Measure Area: Appropriate Use of Healthcare

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Efficiency – High Priority

DESCRIPTION:
Percentage of patients aged 18 years and older, with a diagnosis of acute sinusitis who had a computerized tomography (CT) scan of the paranasal sinuses ordered at the time of diagnosis or received within 28 days after date of diagnosis

INSTRUCTIONS:
This measure may be submitted based on the actions of the submitting Merit-based Incentive Payment System (MIPS) 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 submitted once for **each occurrence** for patients with acute sinusitis during the performance period.

***NOTE**: Include only patients that have a diagnosis of acute sinusitis from January 1 to December 3 of the performance period. This will allow the evaluation of 28 days after the diagnosis of acute sinusitis within the performance period.*

Measure Submission Type:
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 18 years and older with a diagnosis of acute sinusitis

Definition:
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, J01.81, J01.90, J01.91

AND
Patient encounter during performance 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, 99339, 99340, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR:
Patients who had a computerized tomography (CT) scan of the paranasal sinuses ordered at the time of diagnosis or received within 28 days after date of diagnosis

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.

Numerator Options:

Performance Met:	CT scan of the paranasal sinuses ordered at the time of diagnosis or received within 28 days after date of diagnosis **(G9349)**
OR	
Denominator Exception:	CT scan of the paranasal sinuses ordered at the time of diagnosis for documented reasons **(G9348)**
OR	
Performance Not Met:	CT scan of the paranasal sinuses not ordered at the time of diagnosis or received within 28 days after date of diagnosis **(G9350)**

RATIONALE:
Most cases of uncomplicated acute and sub-acute sinusitis are diagnosed clinically and should not require any imaging procedure. Sinus CT scanning is of limited value in the routine evaluation of sinusitis due to the high prevalence of abnormal imaging findings. Forty percent of asymptomatic patients and 87 percent of patients with community-acquired colds have sinus abnormalities on sinus CT. Additionally; sinus CT imaging has a high sensitivity but a low specificity for demonstrating acute sinusitis. Furthermore, CT imaging is not recommended for the diagnosis of uncomplicated sinusitis because it is not cost-effective and exposes patients to unnecessary radiation.

Sinusitis cannot be diagnosed on the basis of imaging findings alone. Findings on CT scans should be interpreted in conjunction with clinical and endoscopic findings. Up to 40% of asymptomatic adults have abnormalities on sinus CT scans, as do more than 80% of those with minor upper respiratory tract infections.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are extracted from the referenced clinical guidelines: AAO-HNS Sinusitis Guideline (2015).

Clinicians should not obtain radiographic imaging for patients who meet diagnostic criteria for acute rhinosinusitis, unless a complication or alternative diagnosis is suspected.

Recommendation (against imaging) based on diagnostic studies with minor limitations and a preponderance of benefit over harm for not obtaining imaging.

The purpose of this statement is to emphasize that clinicians should not obtain radiographic imaging for patients presenting with uncomplicated acute rhinosinusitis (ARS) to distinguish ABRS from VRS, unless a complication or alternative diagnosis is suspected.

Radiographic imaging of the paranasal sinuses is unnecessary for diagnosis in patients who already meet clinical diagnostic criteria (Table 4) for ABRS. Sinus involvement is common in documented viral URIs, making it impossible to distinguish ABRS from VRS based solely on imaging studies. Moreover, clinical criteria may have a comparable diagnostic accuracy to sinus radiography, and radiography is not cost-effective regardless of baseline sinusitis prevalence.

When a complication of ABRS or an alternative diagnosis is suspected, imaging studies may be obtained. Complications of ABRS include orbital, intracranial, or soft tissue involvement. Alternative diagnoses include malignancy and other non-infectious causes of facial pain. Radiographic imaging may also be obtained when the patient has modifying factors or comorbidities that predispose to complications, including diabetes, immune compromised state, or a past history of facial trauma or surgery.

A quality improvement opportunity addressed by this guideline key action statement is avoiding costly diagnostic tests that do not improve diagnostic accuracy yet expose the patient to unnecessary radiation.

American College of Radiology ACR Appropriateness Criteria® For Sinonasal Disease (ACR, 2012) Clinical Condition: Sinonasal Disease
Variant 1: Acute (<4 weeks) or subacute (4-12 weeks) uncomplicated rhinosinusitis. Radiologic Procedure: CT paranasal sinuses without contrast
Rating: 5
Comments: Most episodes are managed without imaging, as this is primarily a clinical diagnosis. Imaging may be indicated if acute frontal sphenoid sinusitis is suspected, or if there are atypical symptoms, or if the diagnosis is uncertain. RRL*: 0.1-1 mSv
Radiologic Procedure: MRI head and paranasal sinuses without contrast
Rating: 4
Comments: May be useful as part of a general workup for headache.
RRL*: 0 mSv
Radiologic Procedure: MRI head and paranasal sinuses without and with contrast
Rating: 2
Comments: May be useful as part of a general workup for headache.
RRL*: 0 mSv
Radiologic Procedure: CT paranasal sinuses with contrast Rating: 2
RRL*: 0.1-1 mSv
Radiologic Procedure: CT paranasal sinuses without and with contrast
Rating: 1
RRL*: 1-10 mSv
Radiologic Procedure: X-ray paranasal sinuses Rating: 1
RRL*: <0.1 mSv
Rating Scale: 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate *Relative Radiation Level

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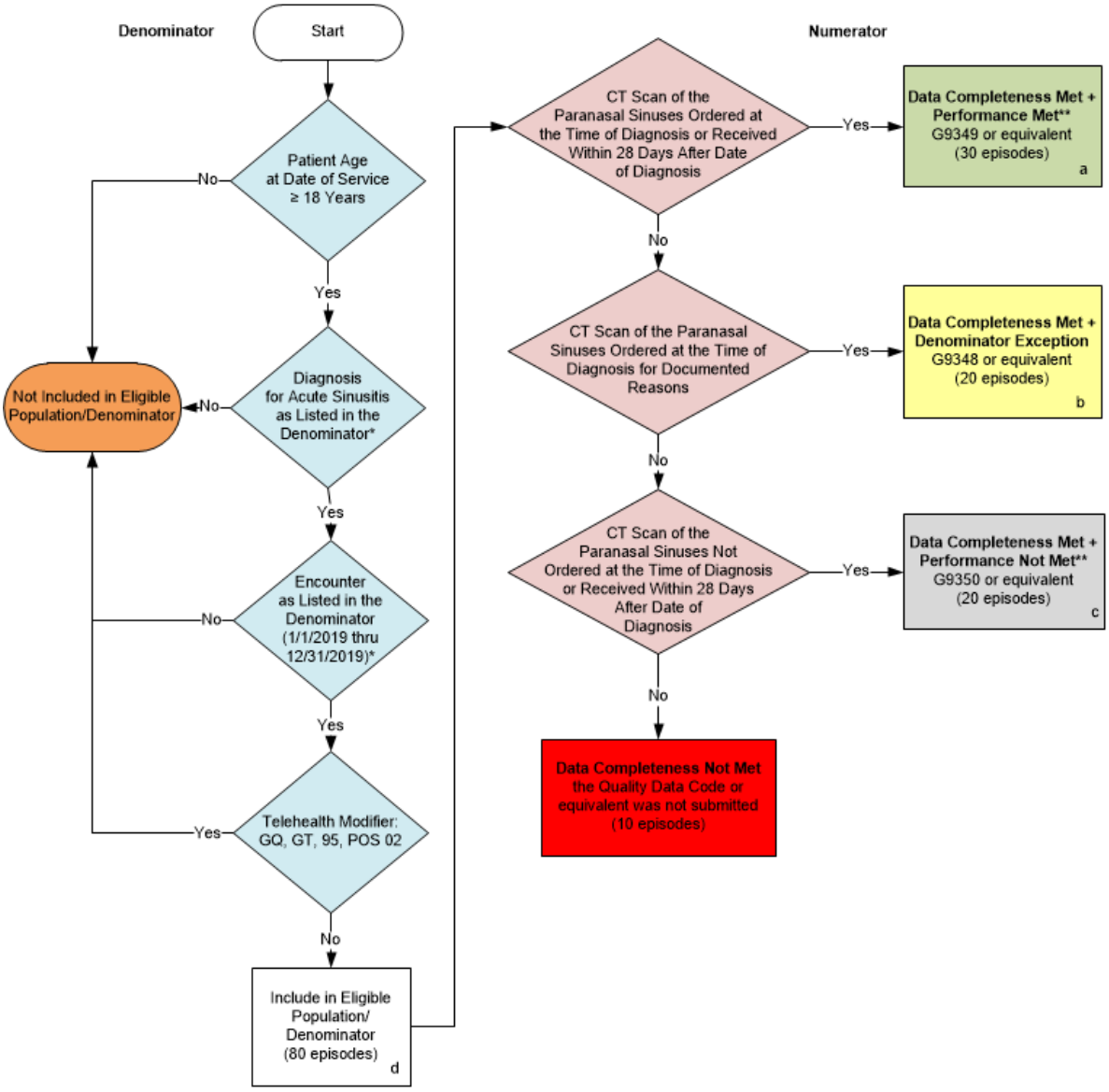
2019 Clinical Quality Measure Flow for Quality ID #333:
Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=30 episodes) + Denominator Exception (b = 20 episodes) + Performance Not Met (c = 20 episodes) / Eligible Population / Denominator (d=80 episodes) = 70 episodes / 80 episodes = **87.50%**

Performance Rate=**

Performance Met (a=30 episodes) / Data Completeness Numerator (70 episodes) – Denominator Exception (b =20 episodes) = 30 episodes / 50 episodes = **60.00%**

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

**A lower calculated performance rate for this measure indicates better clinical control or care.

NOTE: Submission Frequency: Episode

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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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2019 Clinical Quality Measure Flow Narrative for Quality ID #333: Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age at Date of Service is greater than or equal to 18 Years equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Age at Date of Service is greater than or equal to 18 Years equals Yes proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of Acute Sinusitis as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Acute Sinusitis as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
5. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Telehealth Modifier equals No, include in Eligible Population.
6. Denominator Population:
    a. Denominator Population is all Eligible Episodes in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 episodes in the Sample Calculation.
7. Start Numerator
8. Check CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis or Received Within 28 Days After Date of Diagnosis:
    a. If CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis or Received Within 28 Days After Date of Diagnosis equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 30 episodes in the Sample Calculation.

c. If CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis or Received Within 28 Days After Date of Diagnosis equals No, proceed to check CT Scan of Paranasal Sinuses Ordered at the Time of Diagnosis for Documented Reasons.

9. Check CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis for Documented Reasons:

   a. If CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis for Documented Reasons equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 20 episodes in the Sample Calculation.

   c. If CT Scan of the Paranasal Sinuses Ordered at the Time of Diagnosis for Documented Reasons equals No, proceed to check CT Scan of Paranasal Sinuses Not Ordered at the Time of Diagnosis or Received within 28 Days after Date of Diagnosis.

10. Check CT Scan of the Paranasal Sinuses Not Ordered at the Time of Diagnosis or Received Within 28 Days after Date of Diagnosis:

    a. If CT Scan of the Paranasal Sinuses Not Ordered at the Time of Diagnosis or Received within 28 Days after Date of Diagnosis equals Yes, include in the Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 episodes in the Sample Calculation.

    c. If CT Scan of the Paranasal Sinuses Not Ordered at the Time of Diagnosis or Received within 28 Days after Date of Diagnosis equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 episodes have been subtracted from Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=30 episodes) + Denominator Exception (b = 20 episodes) + Performance Not Met (c = 20 episodes)}}{\text{Eligible Population / Denominator (d=80 episodes)}} = \frac{70 \text{ episodes}}{80 \text{ episodes}} = \mathbf{87.50\%}$$

Performance Rate=**

$$\frac{\text{Performance Met (a=30 episodes)}}{\text{Data Completeness Numerator (70 episodes) – Denominator Exception (b =20 episodes)}} = \frac{30 \text{ episodes}}{50 \text{ episodes}} = \mathbf{60.00\%}$$