Quality ID #331: Adult Sinusitis: Antibiotic Prescribed for Acute Viral Sinusitis (Overuse)
– National Quality Strategy Domain: Efficiency and Cost Reduction
– Meaningful Measure Area: Appropriate Use of Healthcare

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

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

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 viral sinusitis during 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 viral 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 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. 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:	Antibiotic regimen prescribed within 10 days after onset of symptoms **(G9286)**
OR	
Denominator Exception:	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 days 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 extracted 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 accompanies 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).

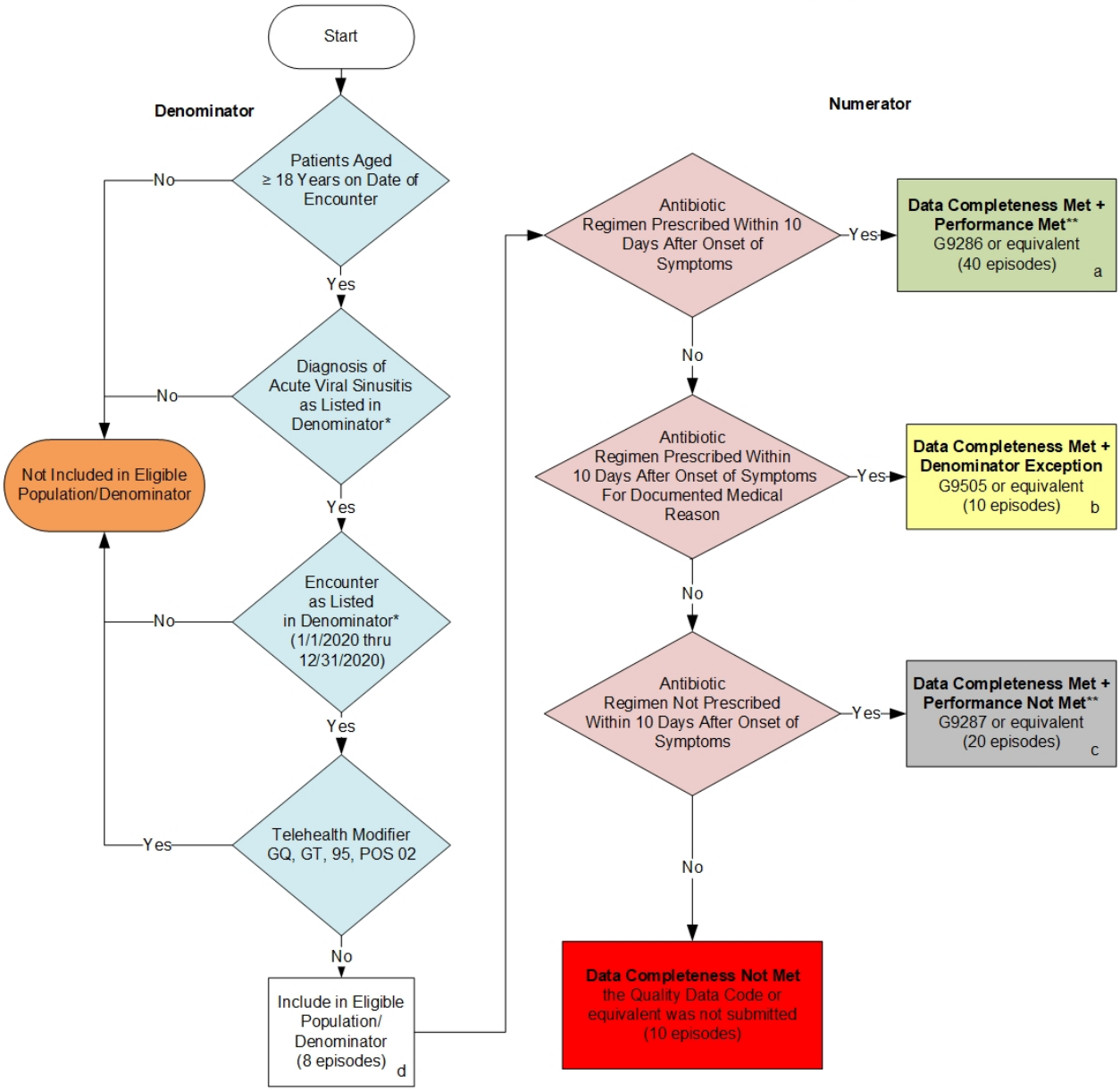
Strong recommendation based on diagnostic studies with minor limitations and a preponderance of benefit over harm.

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.

2020 Clinical Quality Measure Flow for Quality ID #331: Adult Sinusitis: Antibiotic Prescribed for Acute Viral Sinusitis (Overuse)

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 episodes) + Denominator Exception (b=10 episodes) + Performance Not Met (c=20 episodes) / Eligible Population / Denominator (d=80 episodes) = 70 episodes / 80 episodes = **87.50%**

Performance Rate=**

Performance Met (a=40 episodes) / Data Completeness Numerator (70 episodes) – Denominator Exception (b=10 episodes) = 40 episodes / 60 episodes = **66.66%**

*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

v4

2020 Clinical Quality Measure Flow Narrative for Quality ID #331: Adult Sinusitis: Antibiotic Prescribed for Acute Viral Sinusitis (Overuse)

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age at Date of Encounter 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 Encounter is greater than or equal to 18 Years equals Yes, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of Acute Viral Sinusitis as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Acute Viral 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 Antibiotic Regimen Prescribed Within 10 Days After Onset of Symptoms:
    a. If Antibiotic Regime Prescribed Within 10 Days After Onset of Symptoms 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 40 episodes in the Sample Calculation.

c. If Antibiotic Regimen Prescribed Within 10 Days After Onset of Symptoms equals No, proceed to check Antibiotic Regimen within 10 Days after Onset of Symptoms for Documented Medical Reason.

9. Check Antibiotic Regimen Prescribed Within 10 Days After Onset of Symptoms For Documented Medical Reason:

   a. If Antibiotic Regimen Prescribed Within 10 Days After Onset of Symptoms For Documented Medical Reason equals Yes, include in the 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 10 episodes in the Sample Calculation.

   c. If Antibiotic Regimen Prescribed Within 10 Days after Onset of Symptoms For Documented Medical Reason equals No, proceed to check Antibiotic Regimen Not Prescribed Within 10 Days After Onset of Symptoms.

10. Check Antibiotic Regimen Not Prescribed Within 10 Days After Onset of Symptoms:

    a. If Antibiotic Regimen Not Prescribed within 10 Days after Onset of Symptoms 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 Antibiotic Regimen Not Prescribed Within 10 Days After Onset of Symptoms 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=

$$\frac{\text{Performance Met (a=40 episodes) + Denominator Exception (b=10 episodes) + Performance Not Met (c=20 episodes)}}{\text{Eligible Population / Denominator (d=80 episodes)}} = \frac{70 \text{ episodes}}{80 \text{ episodes}} = \mathbf{87.50\%}$$

Performance Rate=**

$$\frac{\text{Performance Met (a=40 episodes)}}{\text{Data Completeness Numerator (70 episodes) – Denominator Exception (b=10 episodes)}} = \frac{40 \text{ episodes}}{60 \text{ episodes}} = \mathbf{66.66\%}$$