Measure #333: Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)

2014 PQRS OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

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 is to be reported once for each occurrence for patients with acute sinusitis 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.

Measure Reporting via Registry
ICD-9-CM/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.

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-9-CM) [for use 1/1/2014-9/30/2014]: 461.0, 461.1, 461.2, 461.3, 461.8, 461.9
Diagnosis for acute sinusitis (ICD-10-CM) [for use 10/01/2014-12/31/2014]: J01.00, J01.10, J01.20, J01.30, J01.40, 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

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 Options:
- CT scan of the paranasal sinuses ordered at the time of diagnosis or received within 28 days after date of diagnosis (G9349)
- OR
- CT scan of the paranasal sinuses ordered at the time of diagnosis for documented reasons (e.g., persons with sinusitis symptoms lasting at least 7 to 10 days, antibiotic resistance, immunocompromised, recurrent sinusitis, acute frontal sinusitis, acute sphenoid sinusitis, periorbital cellulitis, or other medical) (G9348)
- OR
- 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 subacute 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 quoted verbatim from the referenced clinical guidelines:
AAO-HNS Sinusitis Guideline (2007)
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 based on diagnostic studies with minor limitations and a preponderance of benefit over harm.

Radiographic imaging of the paranasal sinuses is unnecessary for diagnosis in patients who already meet clinical diagnostic criteria (Table 5) for acute Rhinosinusitis Imaging modalities for the paranasal sinuses include plain film radiography, computed tomography (CT), and magnetic resonance (MR) imaging. The utility of ultrasound for diagnosis is inconclusive.

Imaging should only be considered for persons with rhinosinusitis symptoms lasting at least 7 to 10 days who have a history of recurrent symptoms or nonresponse to multiple courses of antibiotics in the past.

American College of Radiology ACR Appropriateness Criteria® For Sinonasal Disease (ACR, 2009)
Acute (<4 weeks) and subacute (4-12 weeks) uncomplicated rhinosinusitis.
Radiologic Procedure: CT paranasal sinuses without contrast
Rating: 5
RRL*: 0.1-1 mSv
Comments: Most episodes are managed without imaging as this is primarily a clinical diagnosis. Imaging may be indicated in cases of suspected acute frontal or sphenoid sinusitis or if diagnosis is uncertain.
Radiologic Procedure: MRI head and paranasal sinuses without contrast
Rating: 4
RRL*: 0 mSv
Comments: May be useful as part of a general workup for headache.
Radiologic Procedure: CT paranasal sinuses with contrast
Rating: 2

RRL*: 0.1-1 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.

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