

2018 OPTIONS FOR INDIVIDUAL MEASURES:
CLAIMS ONLY

MEASURE TYPE:
Process

DESCRIPTION:

Percentage of final reports for carotid imaging studies (neck magnetic resonance angiography [MRA], neck computed tomography angiography [CTA], neck duplex ultrasound, carotid angiogram) performed that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement

INSTRUCTIONS:

This measure is to be submitted **each time** a carotid imaging study is performed during the performance period for all patients, regardless of age. There is no diagnosis associated with this measure. Eligible clinicians who provide the professional component of diagnostic imaging studies of the carotids will submit this measure.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator quality-data codes included in this specification are used to submit the quality actions allowed by the measure. All measure-specific coding should be submitted on the claim(s) representing the eligible encounter.

DENOMINATOR:

All final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed

***DENOMINATOR NOTE:** *Signifies that this CPT Category I code is a non-covered service under the PFS (Physician Fee Schedule). These non-covered services will not be counted in the denominator population for claims-based measures.*

Denominator Criteria (Eligible Cases):

Patient procedure during the performance period (CPT): 36221, 36222, 36223, 36224, 37215, 37216*, 37217, 37218, 70498, 70547, 70548, 70549, 93880, 93882

NUMERATOR:

Final reports for carotid imaging studies that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement

Numerator Instructions:

This measure requires that the estimate of stenosis included in the report of the imaging study employ a method such as the North American Symptomatic Carotid Endarterectomy Trial (NASCET) method for calculating the degree of stenosis. The NASCET method calculates the degree of stenosis with reference to the lumen of the carotid artery distal to the stenosis.

For duplex imaging studies the reference is indirect, since the degree of stenosis is inferred from velocity parameters and cross referenced to published or self-generated correlations among velocity parameters and results of angiography or other imaging studies which serve as the gold standard. In Doppler ultrasound, the degree of stenosis can be estimated using Doppler parameter of the peak systolic velocity (PSV) of the internal carotid artery (ICA), with concordance of the degree of narrowing of the ICA lumen. Additional Doppler parameters of ICA-to-common carotid artery (CCA) PSV ratio and ICA end-diastolic velocity (EDV) can be used when degree of stenosis is uncertain from ICA PSV. (Grant et al, 2003)

A short note can be made in the final report, such as:

- Severe left ICA stenosis of 70-80% by NASCET criteria” or
- “Severe left ICA stenosis of 70-80% by criteria similar to NASCET” or
- “70% stenosis derived by comparing the narrowest segment with the distal luminal diameter as related to the reported measure of arterial narrowing” or
- “Severe stenosis of 70-80% - validated velocity measurements with angiographic measurements, velocity criteria are extrapolated from diameter data as defined by the Society of Radiologists in Ultrasound Consensus Conference Radiology 2003; 229:340-346”.

NOTE: In cases where the carotid imaging exam findings result in no stenosis and that determination is included in the final report, the measure can be submitted-as “performance met” since “no stenosis” is considered a NASCET category.

In a small number of denominator cases the distal ICA may not be viewed e.g. an innominate artery or common carotid injection. It can be reported that “stenosis measurements are made with reference to the distal lumen”, as a matter of process and consistent practice method.

Definition:

“Direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement” – includes direct angiographic stenosis calculation based on the distal lumen as the denominator for stenosis measurement OR an equivalent validated method referenced to the above method (e.g., for duplex ultrasound studies, velocity parameters that correlate with anatomic measurements that use the distal internal carotid lumen as the denominator for stenosis measurement).

Numerator Quality-Data Coding Options:

Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement Referenced

Performance Met: CPT II 3100F:

Carotid imaging study report (includes direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement)

OR

Measurements of Distal Internal Carotid Diameter not Referenced, Reason not Otherwise Specified Append a reporting modifier (8P) to CPT Category II code 3100F to submit circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

Performance Not Met: 3100F with 8P:

Carotid imaging study report did not include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement, reason not otherwise specified

RATIONALE:

Accurate assessment of the degree of carotid artery stenosis is essential to guiding proper treatment decisions for patients with carotid artery disease. Trials have demonstrated the ability of the degree of carotid artery stenosis to predict which patients will receive the greatest benefit from surgical intervention. To ensure accurate assessment of stenosis, it is important to use a standardized, validated approach. Rothwell et al demonstrated significant differences between measurements of stenosis made using different methods of measurement.

CLINICAL RECOMMENDATION STATEMENTS:

The panel recommended that the NASCET method of carotid stenosis measurement should be used when angiography is used to correlate the US findings. (SRU, 2003)

When MRA techniques are used for determining carotid stenosis, the report should reflect the methodology and reference the criteria for percent stenosis outlined in the NASCET. Also, the percent stenosis must be calculated using the distal cervical ICA diameter, where the walls are parallel, for the denominator. Similar to CTA, MRA with attention to

the acquisition parameters and post-processing techniques can provide cross sectional measurements of stenosis that correlate with properly performed NASCET estimates of percent stenosis obtained with catheter angiography. In the setting of near occlusion, it may not be accurate to calculate percent stenosis ratios in the presence of post-stenotic arterial diameter decrease. Some MRA techniques may not be amenable to quantitative measurements, in which case qualitative assessment of stenosis should be provided. (ACR, 2010)

COPYRIGHT:

The Measures are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications.

The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the Measures require a license agreement between the user and the American Medical Association (AMA), [on behalf of the Physician Consortium for Performance Improvement® (PCPI®)] or American College of Radiology (ACR). Neither the AMA, ACR, PCPI, nor its members shall be responsible for any use of the Measures.

The AMA's, PCPI's and National Committee for Quality Assurance's significant past efforts and contributions to the development and updating of the Measures is acknowledged. ACR is solely responsible for the review and enhancement ("Maintenance") of the Measures as of December 31, 2014.

ACR encourages use of the Measures by other health care professionals, where appropriate.

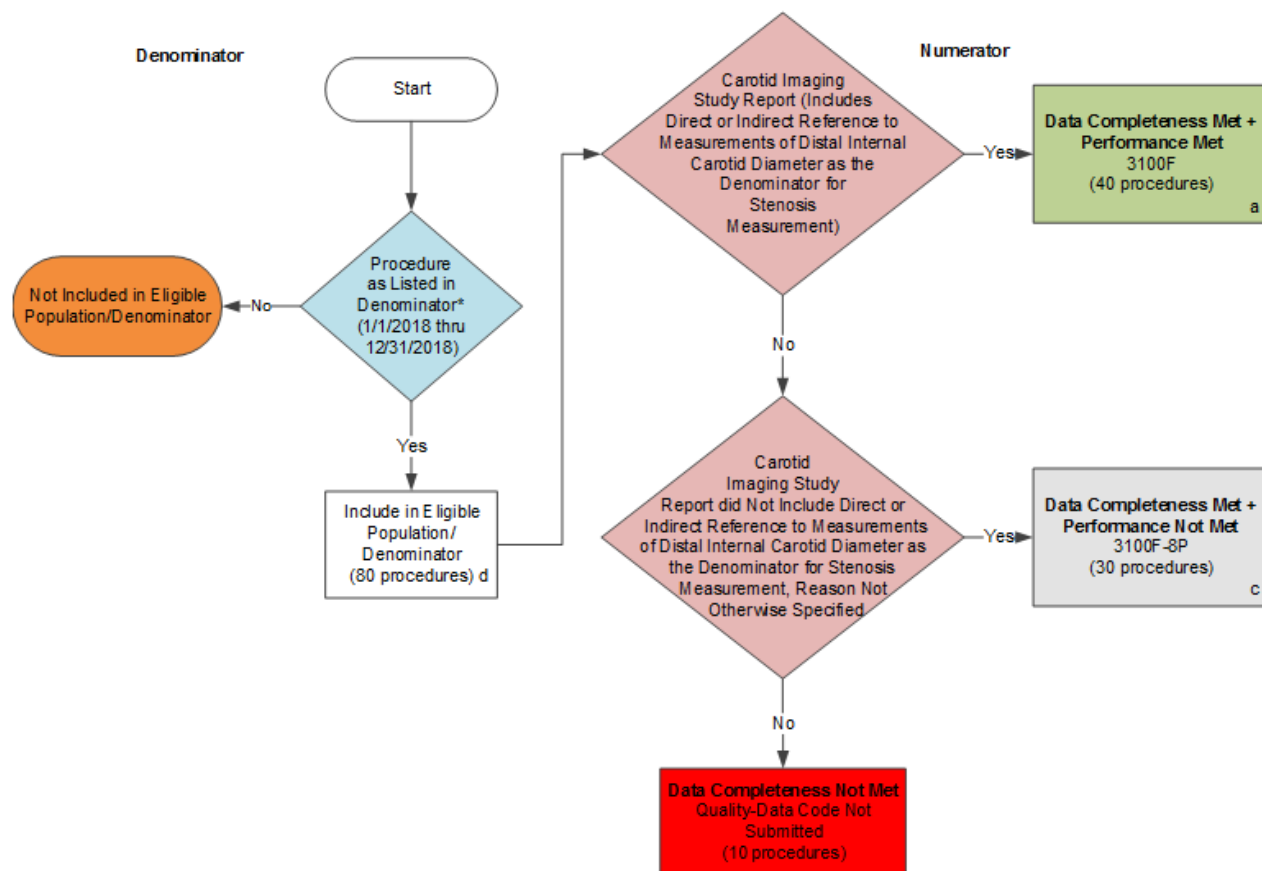
THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2015 American Medical Association and American College of Radiology. All Rights Reserved. Applicable FARS/DFARS Restrictions Apply to Government Use.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, ACR, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the Measures specifications is copyright 2004-2017 American Medical Association. LOINC® copyright 2004-2017 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2017 College of American Pathologists. All Rights Reserved.

**2018 Claims Flow for Quality ID #195 NQF #0507:
Radiology: Stenosis Measurement in Carotid Imaging Reports**



SAMPLE CALCULATION S:

Data Completeness=

$$\frac{\text{Performance Met (a=40 procedures)} + \text{Performance Not Met (c=30 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{40 \text{ procedures}}{70 \text{ procedures}} = 57.14\%$$

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

NOTE: Submission Frequency: Procedure

CPT only copyright 2017 American Medical Association. All rights reserved.
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.

v2

2018 Claims Flow for Quality ID

#195 NQF #0507: Radiology: Stenosis Measurement in Carotid Imaging Reports

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 claims data submission.

1. Start with Denominator
2. Check Procedure Performed:
 - a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Procedure as Listed in the Denominator equals Yes, include in the Eligible Population.
3. 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 equals 80 procedures in the Sample Calculation.
4. Start Numerator
5. Check Carotid Imaging Study Report (Includes Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement):
 - a. If Carotid Imaging Study Report (Includes Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement) 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 procedures in the Sample Calculation.
 - c. If Carotid Imaging Study Report (Includes Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement) equals No, proceed to Carotid Imaging Study Report did Not Include Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement, Reason Not Otherwise Specified.
6. Check Carotid Imaging Study Report did Not Include Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement, Reason Not Otherwise Specified:
 - a. If Carotid Imaging Study Report did Not Include Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement, Reason Not Otherwise Specified equals Yes, include in 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 30 procedures in the Sample Calculation.
 - c. If Carotid Imaging Study Report did Not Include Direct or Indirect Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement, Reason Not Otherwise Specified equals No, proceed to Data Completeness Not Met.

7. Check Data Completeness Not Met:

- a. If Data Completeness Not Met equals No, Quality Data Code not submitted. 10 procedures have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=40 procedures)} + \text{Performance Not Met (c=30 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{40 \text{ procedures}}{70 \text{ procedures}} = 57.14\%$$