Quality ID #345 (NQF 1543): Rate of Asymptomatic Patients Undergoing Carotid Artery Stenting (CAS) Who Are Stroke Free or Discharged Alive

– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Appropriate Use of Healthcare

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Outcome – High Priority

DESCRIPTION:
Percent of asymptomatic patients undergoing CAS who are stroke free while in the hospital or discharged alive following surgery

INSTRUCTIONS:
This measure is to be submitted each time a CAS is performed during the performance period. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide services of CAS, as described in the measure, based on the services provided and the measure-specific denominator coding will submit this measure. This measure may be submitted by MIPS eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

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:
Patients aged 18 and older who are asymptomatic undergoing CAS

Denominator Criteria (Eligible Cases):
Patients aged 18 and older
AND
Patient procedure during performance period (CPT): 37215, 37216
AND NOT
DENOMINATOR EXCLUSIONS:
Symptomatic carotid stenosis: Ipsilateral carotid territory TIA or stroke less than 120 days prior to procedure: 9006F
OR
Other carotid stenosis: Ipsilateral TIA or stroke 120 days or greater prior to procedure or any prior contralateral carotid territory or vertebrobasilar TIA or stroke: 9007F

NUMERATOR:
Patients who are stroke free or in the hospital or discharged alive following CAS

Numerator Options:
Performance Met: Documentation of patient survival and absence of stroke following CAS (G9259)
**Rationale:**
Surgeons performing CAS on asymptomatic patients must select patients at low risk for morbidity and perform the procedure with a very low complication rate in order to achieve benefit. The proposed measure will therefore serve as an indicator of both appropriateness and overall outcome.

**Clinical Recommendation Statements:**

Neurologically asymptomatic patients with ≥ 60% diameter stenosis should be considered for CAS for reduction of long-term risk of stroke, provided the patient has a 3- to 5-year life expectancy and perioperative stroke/death rates can be ≤ 3% (GRADE 1, Level of Evidence A).

**Copyright:**
This measure is owned by the Society for Vascular Surgery - SVS.
2019 Clinical Quality Measure Flow for Quality ID #345 NQF #1543:
Rate of Asymptomatic Patients Undergoing Carotid Artery Stenting (CAS) Who Are Stroke Free or Discharged Alive

Start

Denominator

Patient Age on Date of Encounter ≥ 18 Years

Yes

No

Procedures as Listed in the Denominator (1/2/2019 thru 12/31/2019)*

Yes

No

Other Carotid Stenosis (ipsilateral Carotid Territory TIA or Stroke 126 Days or Greater Prior to Procedure or any Other Carotid Territory or Vertebral Artery TIA or Stroke: 50% or equivalent)

Symptomatic Carotid Stenosis (ipsilateral Carotid Territory TIA or Stroke Less Than 126 Days Prior to Procedure: 50% or equivalent)

Not Included in Eligible Population/Denominator

Denominator Exclusions

Yes

No

Data Completeness Met + Performance Not Met C9255 or equivalent (90 procedures) c4

Data Completeness Met + Performance Not Met C9257 or equivalent (10 procedures) c5

Data Completeness Met + Performance Not Met C9256 or equivalent (10 procedures) c6

Include in Eligible Population/Denominator (90 procedures)

Numerator

Documentation of Patient Survival and Absence of Stroke Following CAS

Yes

No

Documentation of Patient Stroke Following CAS

Yes

No

Data Completeness Met + Performance Not Met C9255 or equivalent (50 procedures) a

Data Completeness Met + Performance Not Met C9257 or equivalent (10 procedures) c1

Data Completeness Met + Performance Not Met C9256 or equivalent (10 procedures) c2

Data Completeness Not Met if the Quality Data Code or equivalent was not submitted (10 procedures)

SAMPLE CALCULATIONS:

Data Completeness =
Performance Met (a = 50 procedures) + Performance Not Met (c1 + c2 + c3) = 70 procedures = 87.50%
Eligible Population / Denominator (d=80 procedures)

Performance Rate =
Performance Met (a = 50 procedures) = 50 procedures = 71.43%
Data Completeness (70 procedures) = 70 procedures

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

NOTE: Submission Frequency: Procedure

© 2018 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.
2019 Clinical Quality Measure Flow Narrative for Quality ID# 345 NQF 1543:
Rate of Asymptomatic Patients Undergoing Carotid Artery Stenting (CAS)
Who Are Stroke Free or Discharged Alive

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 on 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 on Date of Encounter is greater than or equal to 18 Years equals Yes, proceed to check Procedure Performed.

3. Check Procedure Performed:
   a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
   b. If Procedure as Listed in the Denominator equals Yes, proceed to check Symptomatic Carotid Stenosis: Ipsilateral Carotid Territory TIA or Stroke Less Than 120 Days Prior to Procedure.

4. Check Symptomatic Carotid Stenosis: Ipsilateral Carotid Territory TIA or Stroke Less Than 120 Days Prior to Procedure:
   a. If Symptomatic Carotid Stenosis: Ipsilateral Carotid Territory TIA or Stroke Less Than 120 Days Prior to Procedure equals Yes, do not include in Eligible Population. Stop Processing.
   b. If Symptomatic Carotid Stenosis: Ipsilateral Carotid Territory TIA or Stroke Less Than 120 Days Prior to Procedure equals No, proceed to check Other Carotid Stenosis: Ipsilateral TIA or Stroke 120 Days or Greater Prior to Procedure or any Prior Contralateral Carotid Territory or Vertebrobasilar TIA or Stroke.

5. Check Other Carotid Stenosis: Ipsilateral TIA or Stroke 120 Days or Greater Prior to Procedure or any Prior Contralateral Carotid Territory or Vertebrobasilar TIA or Stroke:
   a. If Other Carotid Stenosis: Ipsilateral TIA or Stroke 120 Days or Greater Prior to Procedure or any Prior Contralateral Carotid Territory or Vertebrobasilar TIA or Stroke equals Yes, do not include in Eligible Population. Stop Processing.
   b. If Other Carotid Stenosis: Ipsilateral TIA or Stroke 120 Days or Greater Prior to Procedure or any Prior Contralateral Carotid Territory or Vertebrobasilar TIA or Stroke equals No, include in Eligible Population.

6. Denominator Population:
   a. Denominator Population is all Eligible Procedures 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.

7. Start Numerator

8. Check Documentation of Patient Survival and Absence of Stroke Following CAS:
a. If Documentation of Patient Survival and Absence of Stroke Following CAS 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 50 procedures in the Sample Calculation.

c. If Documentation of Patient Survival and Absence of Stroke Following CAS equals No, proceed to check Documentation of Patient Stroke Following CAS.

9. Check Documentation of Patient Stroke Following CAS:

a. If Documentation of Patient Stroke Following CAS 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 c¹ equals 10 procedures in the Sample Calculation.

c. If Documentation of Patient Stroke Following CAS equals No, proceed to check Documentation of Patient Death Following CAS.

10. Check Documentation of Patient Death Following CAS:

a. If Documentation of Patient Death Following CAS 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 c² equals 10 procedures in the Sample Calculation.

c. If Documentation of Patient Death Following CAS 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 the Data Completeness numerator in the sample calculation.

---

**SAMPLE CALCULATIONS:**

\[
\begin{align*}
\text{Data Completeness} &= \frac{\text{Performance Met (a = 50 procedures) + Performance Not Met (c¹+c²=30 procedures)}}{\text{Eligible Population/Denominator (d=80 procedures)}} = 70 \text{ procedures} = 87.50\% \\
\text{Performance Rate} &= \frac{\text{Performance Met (a = 50 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = 50 \text{ procedures} = 71.43\% \\
\end{align*}
\]