Quality ID #417 (NQF 1523): Rate of Open Repair of Small or Moderate Abdominal Aortic Aneurysms (AAA) Where Patients Are Discharged Alive – National Quality Strategy Domain: Patient Safety

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Outcome

DESCRIPTION:
Percentage of patients undergoing open repair of small or moderate non-ruptured infrarenal abdominal aortic aneurysms (AAA) who are discharged alive

INSTRUCTIONS:
This measure is to be submitted **each time** a repair of abdominal aortic aneurysms (AAA) is performed during the performance period. It is anticipated that eligible clinicians who provide services of the repair of abdominal aortic aneurysms (AAA), 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 eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by 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:
Patients aged 18 and older with all elective open repairs of small or moderate asymptomatic AAAs in men with < 6 cm diameter and women with < 5.5 cm diameter AAAs

> **Denominator Criteria (Eligible Cases):**
> Patients aged 18 and older
> **AND**
> **Patient procedure during performance period (CPT):** 35081, 35102
> **AND NOT**
> **DENOMINATOR EXCLUSIONS:**
> **For women:**
> **Aortic aneurysm 5.5 - 5.9 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT:** 9003F
> **OR**
> **Aortic aneurysm 6.0 cm or greater maximum diameter on centerline formatted CT or minor diameter on axial formatted CT:** 9004F
> **OR**
> **For men:**
> **Aortic aneurysm 6.0 cm or greater maximum diameter on centerline formatted CT or minor diameter on axial formatted CT:** 9004F
> **OR**
> **Symptomatic AAAs that required urgent/emergent (non-elective) repair:** G9600

NUMERATOR:

Patients discharged alive/home following open repair of asymptomatic AAAs in men with < 6 cm diameter and women with < 5.5 cm diameter AAAs

> **Numerator Instructions:** A higher calculated performance rate for this measure indicates better clinical care or control. Therefore the "Performance Met" numerator outcome option for this measure is the representation of the better clinical quality or control. Submitting that numerator outcome option will produce a performance rate that trends closer to 100%, as quality increases.

> **Definition:**
> **Home** – For purposes of submitting this measure, home is the point of origin prior to hospital admission prior to procedure of AAA. For example, if the patient comes from a skilled facility and returns to the skilled facility post AAA repair, this would meet criteria for discharged to home.

> **Numerator Options:**
> *Performance Met:*   Patient discharge to home no later than post-operative day #7 **(G9601)**

OR

> *Performance Not Met:*   Patient not discharged to home by post-operative day #7 **(G9602)**

RATIONALE:

Elective repair of a small or moderate sized AAA is a prophylactic procedure and the mortality/morbidity of the procedure must be contrasted with the risk of rupture over time. Surgeons should select patients for intervention who have a reasonable life expectancy and who do not have a high surgical risk. Discharge to home within one week of open AAA repair is an indicator of patients who were not frail prior to the procedure and who did not experience a major complication. The proposed measure will therefore serve as an indicator of both appropriateness and overall outcome.

CLINICAL RECOMMENDATION STATEMENTS:

The Care of Patients with an Abdominal Aortic Aneurysm: The Society for Vascular Surgery Practice Guidelines. (Chaikof et al, J Vasc Surg, 50:4, supplement, 2009)

Elective repair is recommended for patients that present with a fusiform AAA ≥ 5.5 cm in maximum diameter, in the absence of significant co-morbidities.

Level of recommendation: Strong

 Quality of evidence: High

Surveillance is recommended for most patients with a fusiform AAA in the range of 4.0 cm to 5.4 cm in maximum diameter.
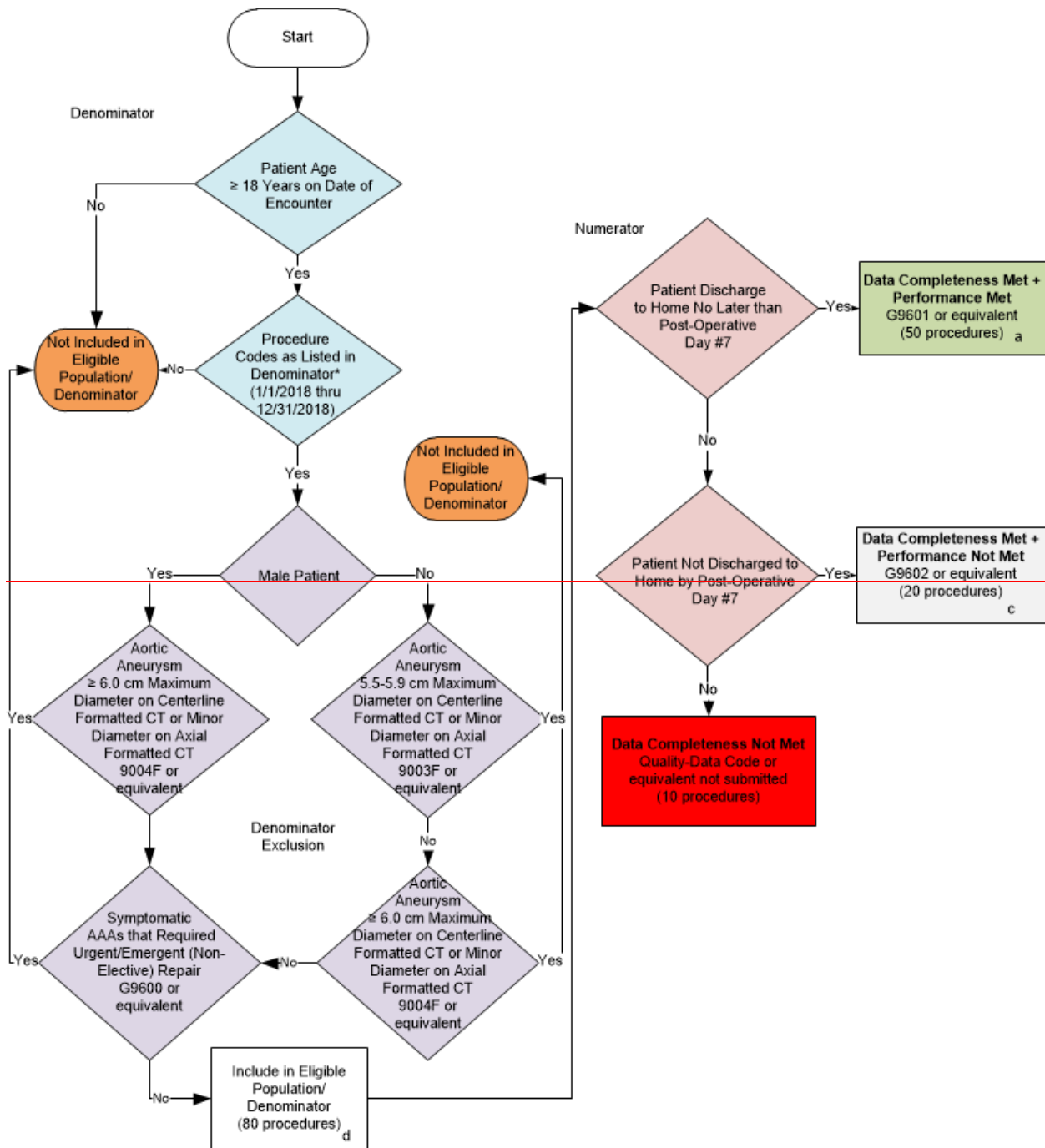
Level of recommendation: Strong

Quality of evidence: Moderate

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2018 Registry Flow for Quality ID #417 (NQF 1523): Rate of Open Repair of Small or Moderate Abdominal Aortic Aneurysms (AAA) Where Patients Are Discharged Alive

*See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Procedure

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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.

v2

2018 Registry Flow for Quality ID #417 (NQF 1523): Rate of Open Repair of Small or Moderate Abdominal Aortic Aneurysms (AAA) Where Patients Are Discharged Alive

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=50 procedures) + Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a =50 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{50 \text{ procedures}}{70 \text{ procedures}} = 71.43\%$$

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

Denominator

Patient Age ≥ 18 Years on Date of Encounter

No → Not Included in Eligible Population/ Denominator

Yes ↓

Procedure Codes as Listed in Denominator* (1/1/2018 thru 12/31/2018)

No → Not Included in Eligible Population/ Denominator

Yes ↓

Male Patient

Yes → Aortic Aneurysm ≥ 6.0 cm Maximum Diameter on Centerline Formatted CT or Minor Diameter on Axial Formatted CT 9004F or equivalent — Yes

No → Aortic Aneurysm 5.5-5.9 cm Maximum Diameter on Centerline Formatted CT or Minor Diameter on Axial Formatted CT 9003F or equivalent — Yes

Denominator Exclusion

No ↓ Symptomatic AAAs that Required Urgent/Emergent (Non-Elective) Repair G9600 or equivalent — Yes

No ↓ Aortic Aneurysm ≥ 6.0 cm Maximum Diameter on Centerline Formatted CT or Minor Diameter on Axial Formatted CT 9004F or equivalent — Yes

No → Include in Eligible Population/ Denominator (80 procedures) d

Numerator

Patient Discharge to Home No Later than Post-Operative Day #7

Yes → **Data Completeness Met + Performance Met** G9601 or equivalent (50 procedures) a

No ↓

Patient Not Discharged to Home by Post-Operative Day #7

Yes → **Data Completeness Met + Performance Not Met** G9602 or equivalent (20 procedures) c

No ↓

Data Completeness Not Met Quality-Data Code or equivalent not submitted (10 procedures)
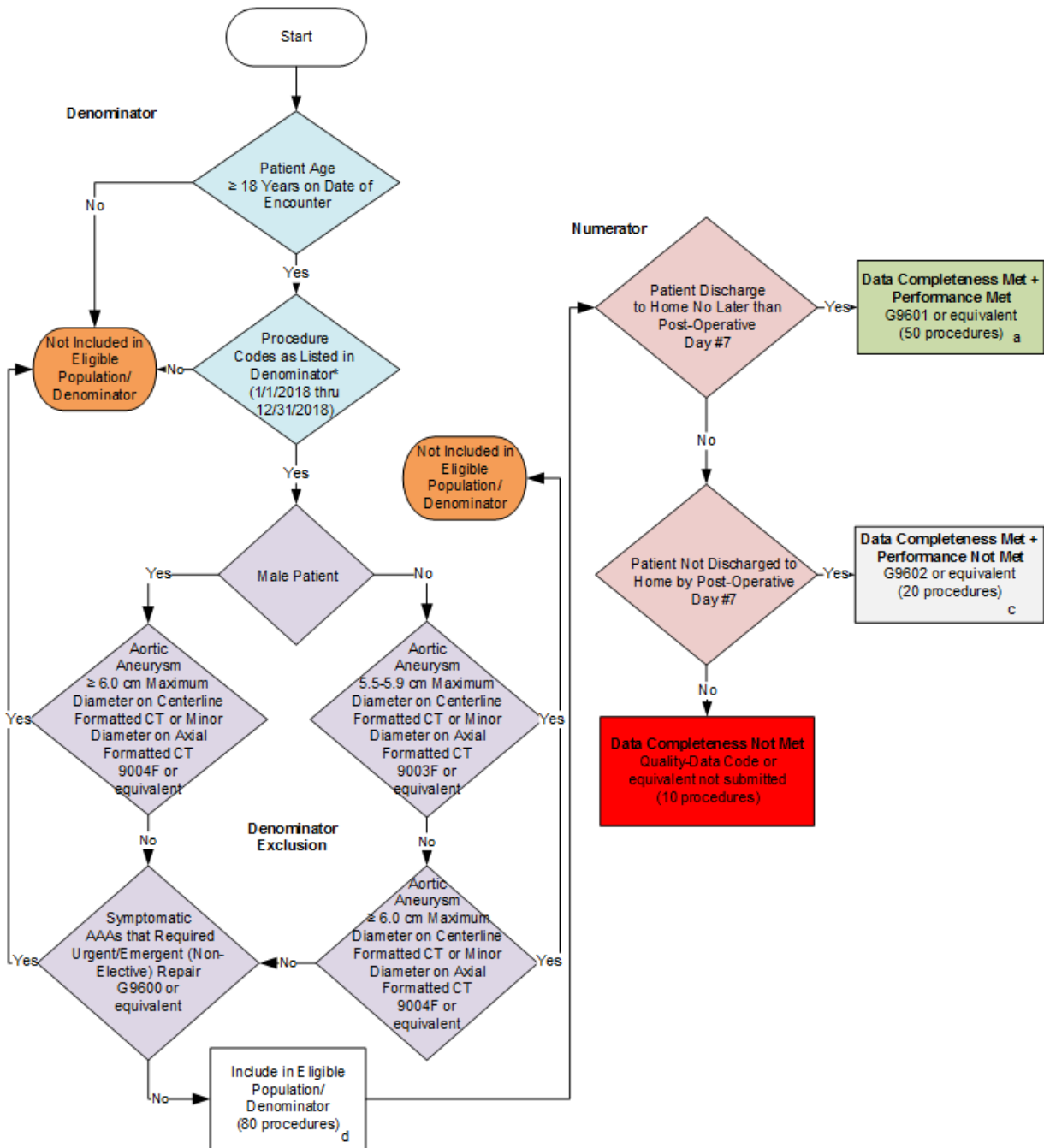
*See the posted Measure Specification for specific coding and instructions to submit this measure.
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SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=50 procedures) + Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

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2018 Registry Flow for Quality ID
#417 (NQF 1523): Rate of Open Repair of Small or Moderate Abdominal Aortic Aneurysms (AAA)
Where Patients Are 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. This flow is for registry data submission.

1. Start with Denominator

2. Check Patient Age:

   a. If Patient Age at Date of Encounter is equal to or greater than 18 years ~~If the Age greater than or equal to 18 years of age on date of encounter~~ equals No during the performance~~measurement~~ period, do not include in Eligible Patient Population. Stop Processing.

   b. If Patient Age at Date of Encounter is equal to or greater than 18 years ~~If the Age greater than or equal to 18 years of age on date of encounter~~ equals Yes during the performance~~measurement~~ period, proceed to check Procedure Performed.

3. Check Procedure Performed:

   a. If Procedure Codes as listed in the denominator equals No, do not include in Eligible Patient Population. Stop Processing.

   b. If Procedure Codes as listed in the denominator equals Yes, proceed to check Male Patient.

4. Check Gender Male Patient:

   a. If Male Patient equals No, proceed to check Aortic Aneurysm 5.5 through 5.9 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT.

   b. If Male Patient equals Yes, proceed to check Aortic Aneurysm greater than or equal to 6.0 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT.

5. Check Aortic Aneurysm 5.5 through 5.9 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT:

   a. If Aortic Aneurysm 5.5 through 5.9 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT equals No, proceed to check Aortic Aneurysm greater than or equal to 6.0 cm Maximum Diameter on centerline formatted CT or minor diameter on axial formatted CT.

   b. If Aortic Aneurysm 5.5 through 5.9 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT equals Yes, do not include in Eligible Patient Population. Stop Processing.

6. Check Aortic Aneurysm greater than or equal to 6.0 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT:

   a. If Aortic Aneurysm greater than or equal to 6.0 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT equals No, proceed to check Symptomatic AAA that Required Urgent/Emergent (Non-Elective) Repair.

   b. If Aortic Aneurysm greater than or equal to 6.0 cm maximum diameter on centerline formatted CT or minor diameter on axial formatted CT equals Yes, do not include in Eligible Patient Population. Stop Processing.

7. Check _Symptomatic AAA that Required_ Urgent/Emergent Repair:

    a. If Symptomatic AAA that Required Urgent/Emergent (Non-Elective) Repair equals No, include in Eligible Population.

    b. If Symptomatic AAA that Required Urgent/Emergent (Non-Elective) Repair equals Yes, do not include in Eligible Patient Population. Stop Processing.

8. 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.

9. Start Numerator

10. Check Patient Discharge to Home No Later than Post-Operative Day #7:

    a. If Patient Discharge to Home No Later than Post-Operative Day #7 equals Yes, include in Data Completeness Met and Performance Met.

    b. Data Completeness Met and Performance Met 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 Patient Discharge to Home No Later than Post-Operative Day #7 equals No, proceed to check Patient not Discharged to Home by Post-Operative Day #7.

11. Check Patient Not Discharged to Home by Post-Operative Day #7:

    a. If Patient Not Discharged to Home by Post-Operative Day #7 equals Yes, include in Data Completeness Met and Performance Not Met.

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

    c. If Patient Not Discharged to Home by Post-Operative Day #7 equals No, proceed to Data Completeness Not Met.

12. Check Data Completeness Not Met:

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

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=50 procedures) + Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{\text{70 procedures}}{\text{80 procedures}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a =50 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{\text{50 procedures}}{\text{70 procedures}} = 71.43\%$$