Quality ID #168 (NQF 0115): Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Preventable Healthcare Harm

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Outcome – High Priority

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who require a return to the operating room (OR) during the current hospitalization for mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason

INSTRUCTIONS:
This measure is to be submitted each time an isolated CABG procedure is performed during the performance period. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide services for isolated CABG will submit this measure. This measure is intended to reflect the quality of the surgical services provided for isolated CABG or isolated reoperation CABG patients. Isolated CABG refers to CABG using arterial and/or venous grafts only

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 undergoing isolated CABG surgery

Denominator Criteria (Eligible Cases):
All patients aged 18 years and older on date of encounter
AND
Patient procedure during the performance period (CPT): 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536
OR
Patient procedure during the performance period (CPT): 33530

NUMERATOR:
Patients undergoing isolated CABG surgery who require a return to the OR during the current hospitalization for mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason

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:** Re-exploration required due to mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason (G8577)

**OR**

**Performance Not Met:** Re-exploration not required due to mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason (G8578)

**RATIONALE:**

In 2000, coronary artery bypass graft (CABG) surgery was performed on more than 350,000 patients at a cost of close to $20 billion. Re-exploration after surgery is a serious complication that impacts length of stay, efficient use of resources, and increases risk for additional complications and death. As one of several major complications of cardiac surgery, repeat surgery is particularly worrisome for consumers and is an inefficient use of resources.

**CLINICAL RECOMMENDATION STATEMENTS:**

Re-exploration after surgery is a serious complication that impacts length of stay, efficient use of resources, and increases risk for additional complications and death. This measure is currently in use by approximately 65% of providers in the United States who perform cardiac surgery and report data to the STS National Database.

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Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration

Start

Denominator

Net Included in Eligible Population/Denominator

Patient Age at Date of Service ≥ 18 Years

No

Yes

Procedure for Re-Operation as Listed in Denominator (1/1/2019 thru 12/31/2019)*

No

Yes

Procedure for Isolated CABG as Listed in Denominator (1/1/2019 thru 12/31/2019)

No

Yes

Include in Eligible Population/Denominator (80 procedures)

d

Numerator

Re-exploration Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason

Yes

Data Completeness Met + Performance Met**
GS677 or equivalent (40 procedures)

No

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

d

Re-exploration Not Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason

Yes

Data Completeness Met + Performance Not Met**
GS678 or equivalent (30 procedures)

No

... (remainder of diagram)

data

SAMPLE CALCULATIONS:

Data Completeness Rate =
Performance Met (n=40 procedures) + Performance Not Met (n=10 procedures) = 70 procedures = 87.50%
Eligible Population / Denominator (n=80 procedures) = 80 procedures

Performance Rate** =
Performance Met (n=40 procedures) = 40 procedures = 57.14%
Data Completeness Numerator (70 procedures) = 70 procedures

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 care or control.
NOTE: Submission Frequency: Procedure

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The measure diagram was developed by CMS as a supplemental measure 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 #168 NQF #0115: Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. A lower calculated performance rate for this measure indicates better clinical care or control.

1. Start with Denominator

2. Check Patient Age:
   a. If Patient Age at Date of Service 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 Service is greater than or equal to 18 Years equals Yes, proceed to check Procedure Performed.

3. Check Procedure Performed:
   a. If Procedure for Isolated CABG as Listed in the Denominator equals No, proceed to check Procedure for Re-Operation as Listed in Denominator.
   b. If Procedure for Isolated CABG as Listed in the Denominator equals Yes, include in Eligible Population.

4. Check Procedure for Re-Operation:
   a. If Procedure for Re-Operation as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
   b. If Procedure for Re-Operation as Listed in Denominator equals Yes, proceed to check Procedure for Re-Operation.

5. Check Procedure for Re-Operation:
   a. If Procedure for Re-Operation as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Procedure for Re-Operation as Listed in Denominator equals Yes, 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 Re-Exploration Required Due to Mediastinal Bleeding With Or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason:
   a. If Re-Exploration Required Due to Mediastinal Bleeding With Or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason 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 Re-Exploration Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason equals No, proceed to check Re-Exploration Not Required Due to Mediastinal Bleeding With Or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason.

9. Check Re-Exploration Not Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason:

a. If Re-Exploration Not Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Not Performance 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 Re-Exploration Not Required Due to Mediastinal Bleeding With or Without Tamponade, Graft Occlusion, Valve Dysfunction or Other Cardiac Reason equals No, proceed to check Data Completeness Not Met.

10. 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:**

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\text{Data Completeness Rate} = \frac{\text{Performance Met (a=40 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50% \\
\text{Performance Rate} = \frac{\text{Performance Met (c=30 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{70 \text{ procedures}}{70 \text{ procedures}} = 57.14% 
\]