Quality ID #167 (CBE 0114): Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure

2024 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 (without pre-existing renal failure) who develop postoperative renal failure or require dialysis.

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 surgery
> **AND**
> **Patient procedure during the performance period (CPT):** 33509, 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536
> **WITHOUT**
> **Telehealth Modifier (including but not limited to)**: GQ, GT, 95, POS 02, POS 10
> **OR**
> **Patient procedure during the performance period (CPT):** 33509, 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536
> **AND**
> **Patient procedure during the performance period (CPT):** 33530
> **WITHOUT**
> **Telehealth Modifier (including but not limited to)**: GQ, GT, 95, POS 02, POS 10
> **AND NOT**
> **DENOMINATOR EXCLUSION:**
> **Documented history of renal failure or baseline serum creatinine ≥ 4.0 mg/dL; renal transplant recipients are not considered to have preoperative renal failure, unless, since transplantation the Cr has been or is 4.0 or higher:** G9722

NUMERATOR:
Patients who develop postoperative renal failure or require dialysis; (Definition of renal failure/dialysis requirement - patient had acute renal failure or worsening renal function resulting in one of the following: 1) increase of serum creatinine to ≥ 4.0 mg/dL or 3x most recent preoperative creatinine level (acute rise must be at least 0.5 mg/dL), or 2) a new requirement for dialysis postoperatively)

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: Developed postoperative renal failure or required dialysis **(G8575)**

OR

Performance Not Met: No postoperative renal failure/dialysis not required **(G8576)**

RATIONALE:
In 2000, CABG surgery was performed on more than 350,000 patients at a cost of close to $20 billion. Some degree of Acute Renal Dysfunction (ARD) occurs in about 8% of patients following CABG, and dialysis-dependent renal failure occurs in 0.7% to 3.5% of patients receiving CABG. The latter is associated with substantial increases in morbidity, length of stay, and mortality (odds ratios for mortality range from 15 to 27). ARD is associated with increased morbidity, mortality and length of stay in an ICU following surgery. In addition, Acute Renal Failure occurs in 1.5% of patients undergoing any type of cardiac surgery. There has been a substantial increase in postoperative morbidity, mortality, and cost associated with this relatively common complication, regardless of whether or not this incidence varies much between providers, and there are implications of even a modest decrease in its incidence.

CLINICAL RECOMMENDATION STATEMENTS:
Acute Renal Failure following CABG is an intermediate outcome measure for mortality since this complication is independently associated (OR=27) with early mortality following cardiac surgery, even after adjustment for co-morbidity and postoperative complications.

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2024 Clinical Quality Measure Flow for Quality ID #167 (CBE 0114): Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.
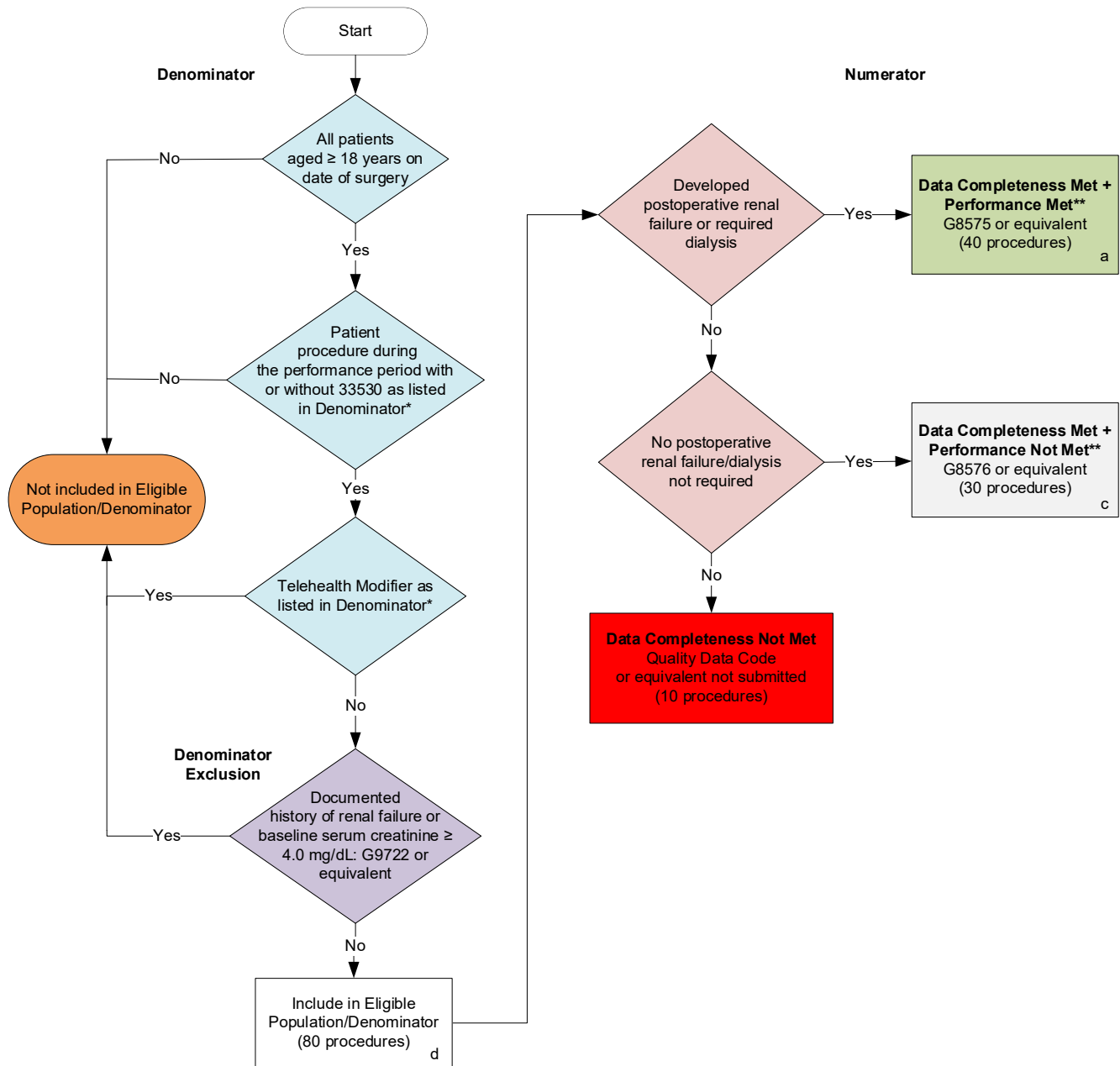
SAMPLE CALCULATIONS

Data Completeness=

Performance Met (a=40 procedures) + Performance Not Met (c=30 procedures) = 70 procedures = **87.50%**

Eligible Population / Denominator (d=80 procedures) = 80 procedures

Performance Rate=**

Performance Met (a=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

2024 Clinical Quality Measure Flow Narrative for Quality ID #167 (CBE 0114):
Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

1. Start with Denominator

2. Check *All patients aged greater than or equal to 18 years on date of surgery*:

   a. If *All patients aged greater than or equal to 18 years on date of surgery* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *All patients aged greater than or equal to 18 years on date of surgery* equals Yes, proceed to check *Patient procedure during the performance period with or without 33530 as listed in Denominator**.

3. Check *Patient procedure during the performance period with or without 33530 as listed in Denominator**:

   a. If *Patient procedure during the performance period with or without 33530 as listed in Denominator** equals No, do not include in *Eligible Population/Denominator.* Stop processing.

   b. If *Patient procedure during the performance period with or without 33530 as listed in Denominator** equals Yes, proceed to check *Telehealth Modifier as listed in Denominator**.

4. Check *Telehealth Modifier as listed in Denominator**:

   a. If *Telehealth Modifier as listed in Denominator** equals Yes, do not include in *Eligible Population/Denominator.* Stop processing.

   b. If *Telehealth Modifier as listed in Denominator** equals No, proceed to check *Documented history of renal failure or baseline serum creatinine greater than or equal to 4.0 mg/dL*.

5. Check *Documented history of renal failure or baseline serum creatinine greater than or equal to 4.0 mg/dL*:

   a. If *Documented history of renal failure or baseline serum creatinine greater than or equal to 4.0 mg/dL* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Documented history of renal failure or baseline serum creatinine greater than or equal to 4.0 mg/dL* equals No, include in *Eligible Population/Denominator*.

6. Denominator Population:

   - 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 *Developed postoperative renal failure or required dialysis*:

   a. If *Developed postoperative renal failure or required dialysis* equals Yes, include in *Data Completeness Met and Performance Met***.

      • *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.

b. If *Developed Postoperative Renal Failure or Required Dialysis* equals No, proceed to check *No postoperative renal failure/dialysis not required*.

9. Check *No postoperative renal failure/dialysis not required*:

a. If *No postoperative renal failure/dialysis not required* equals Yes, include in *Data Completeness Met and Performance Not Met***.

- *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.

b. If *No postoperative renal failure/dialysis not required* equals No, proceed to check *Data Completeness Not Met*.

10. Check *Data Completeness Not Met*:

- 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.

<u>Sample Calculations</u>

Data Completeness equals Performance Met (a equals 40 procedures) plus Performance Not Met (c equals 30 procedures) divided by Eligible Population / Denominator (d equals 80 procedures). All equals 70 procedures divided by 80 procedures. All equals 87.50 percent.

Performance Rate** equals Performance Met (a equals 40 procedures) divided by Data Completeness Numerator (70 procedures). All equals 40 procedures divided by 70 procedures. All equals 57.14 percent.

*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

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.