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

2026 COLLECTION TYPE:
MERIT-BASED INCENTIVE PAYMENT SYSTEM (MIPS) CLINICAL QUALITY MEASURE (CQM)

MEASURE TYPE:
Outcome – High Priority

- *INVERSE MEASURE: LOWER SCORE – BETTER*

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated coronary artery bypass graft (CABG) surgery (without pre-existing renal failure) who develop postoperative renal failure or require dialysis.

INSTRUCTIONS:
Reporting Frequency:
This measure is to be submitted each time a denominator eligible procedure as defined in the denominator criteria is performed.

Intent and Clinician Applicability:
This measure is intended to reflect the quality of surgical services provided for isolated CABG or isolated reoperation CABG patients. "Isolated CABG" refers to CABG using arterial and/or venous grafts only. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions as defined by the numerator based on the services provided and the measure-specific denominator coding.

Measure Strata and Performance Rates:
This measure contains one strata defined by a single submission criteria.
This measure produces a single performance rate.

Implementation Considerations:
For the purposes of MIPS implementation, this procedure measure is submitted each time a procedure is performed during the performance period.

This is an inverse measure which means 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.

Telehealth:
NOT TELEHEALTH ELIGIBLE: This measure is not appropriate for nor applicable to the telehealth setting. This measure is procedure based and therefore doesn't allow for the denominator criteria to be conducted via telehealth. It would be appropriate to remove these patients from the denominator eligible patient population. Telehealth eligibility is at the measure level for inclusion within the denominator eligible patient population and based on the measure specification definitions which are independent of changes to coding and/or billing practices.

Measure Submission:
The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this collection type for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. The coding provided to identify the measure criteria: Denominator or Numerator, may be an example of coding that could be used to identify patients that meet the intent of this clinical topic. When

implementing this measure, please refer to the 'Reference Coding' section to determine if other codes or code languages that meet the intent of the criteria may also be used within the medical record to identify and/or assess patients. 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

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
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:
Renal failure/dialysis requirement – patient had acute renal failure or worsening renal function resulting in one of the following: 1) increase of serum creatinine level 3x greater than baseline, or 2) serum creatinine level ≥4.0 mg/dL with at least a 0.5mg/dL increase, or 3) a new requirement for dialysis postoperatively.

Numerator Options:

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

OR

Performance Met:	Developed postoperative renal failure or required dialysis (G8575)

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.

REFERENCES:

There are no sources in the current document.

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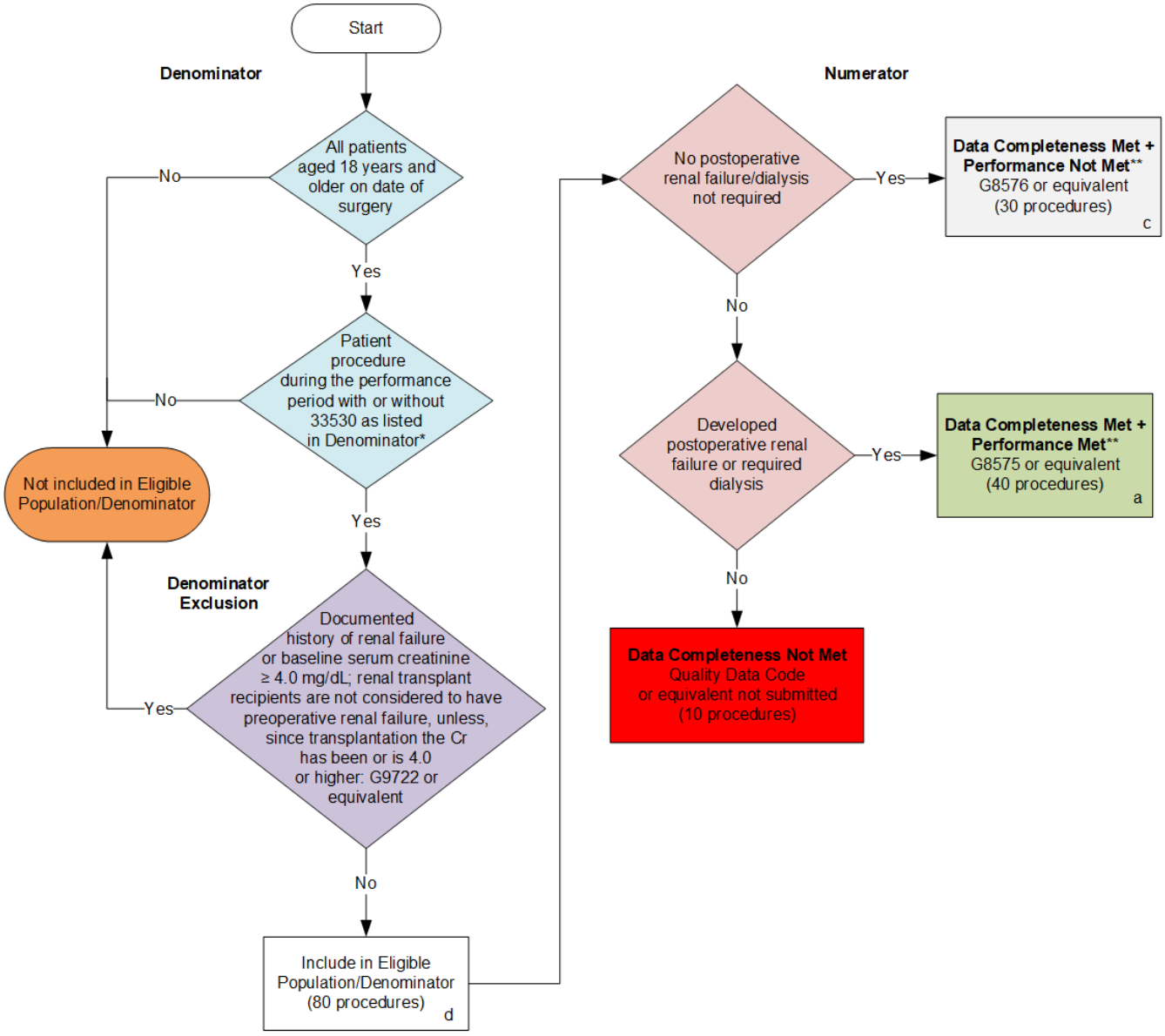
2026 Clinical Quality Measure Flow for Quality ID #167:
Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure
INVERSE MEASURE: LOWER SCORE - BETTER

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) / Eligible Population / Denominator (d=80 procedures) = 70 procedures / 80 procedures = **87.50%**

Performance Rate=**

Performance Met (a=40 procedures) / Data Completeness Numerator (70 procedures) = 40 procedures / 70 procedures = **57.14%**

*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

2026 Clinical Quality Measure Flow Narrative for Quality ID #167: Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure

INVERSE MEASURE: LOWER SCORE - BETTER

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

1. Start with Denominator
2. Check *All patients aged 18 years and older on date of surgery*:
    a. If *All patients aged 18 years and older on date of surgery* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *All patients aged 18 years and older 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 *Documented history of renal failure or baseline serum creatinine greater than or equal to 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.*
4. Check *Documented history of renal failure or baseline serum creatinine greater than or equal to 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.*
    a. If *Documented history of renal failure or baseline serum creatinine greater than or equal to 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* 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; renal transplant recipients are not considered to have preoperative renal failure, unless, since transplantation the Cr has been or is 4.0 or higher* equals No, include in *Eligible Population/Denominator*.
5. 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.
6. Start Numerator
7. 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 *Developed postoperative renal failure or required dialysis*.

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 *Data Completeness Not Met*.

9. 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.

Sample Calculations

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.