

Quality ID#164 (NQF 0129): Coronary Artery Bypass Graft (CABG): Prolonged Intubation – National Quality Strategy Domain: Effective Clinical Care

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Outcome

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who require postoperative intubation > 24 hours

INSTRUCTIONS:
This measure is to be submitted each time an isolated CABG procedure is performed during the performance period. It is anticipated that eligible clinicians who provide services for isolated CABG will submit this measure. 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.

Measure Submission:
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 allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients undergoing isolated CABG surgery

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years 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): 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536

AND
Patient procedure during the performance period (CPT): 33530

NUMERATOR:
Patients undergoing isolated CABG who require intubation > 24 hours following exit from the operating room

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:

Prolonged postoperative intubation (> 24 hrs.) required
(G8569)

OR

Performance Not Met:

Prolonged postoperative intubation (> 24 hrs.) not
required (G8570)

RATIONALE:

Based on the STS coronary artery bypass graft (CABG) study population, the morbidity rate associated with prolonged intubation following CABG is 5.96%. Also, prolonged ventilation (defined as > 24 hours) was an independent predictor for readmission to the ICU following CABG surgery (OR=10.53; CI: 6.18 to 17.91). Shorter ventilation times are linked to high quality of care (i.e., reduced in-hospital and operative mortality, as well as better long-term outcomes as compared to prolonged ventilation).

CLINICAL RECOMMENDATION STATEMENTS:

Extubation greater than (>) 24 hours postoperatively is considered a "pulmonary complication". Patients who were extubated more than 24 hours after surgery had a longer duration of hospital stay and a greater incidence of postoperative complications.

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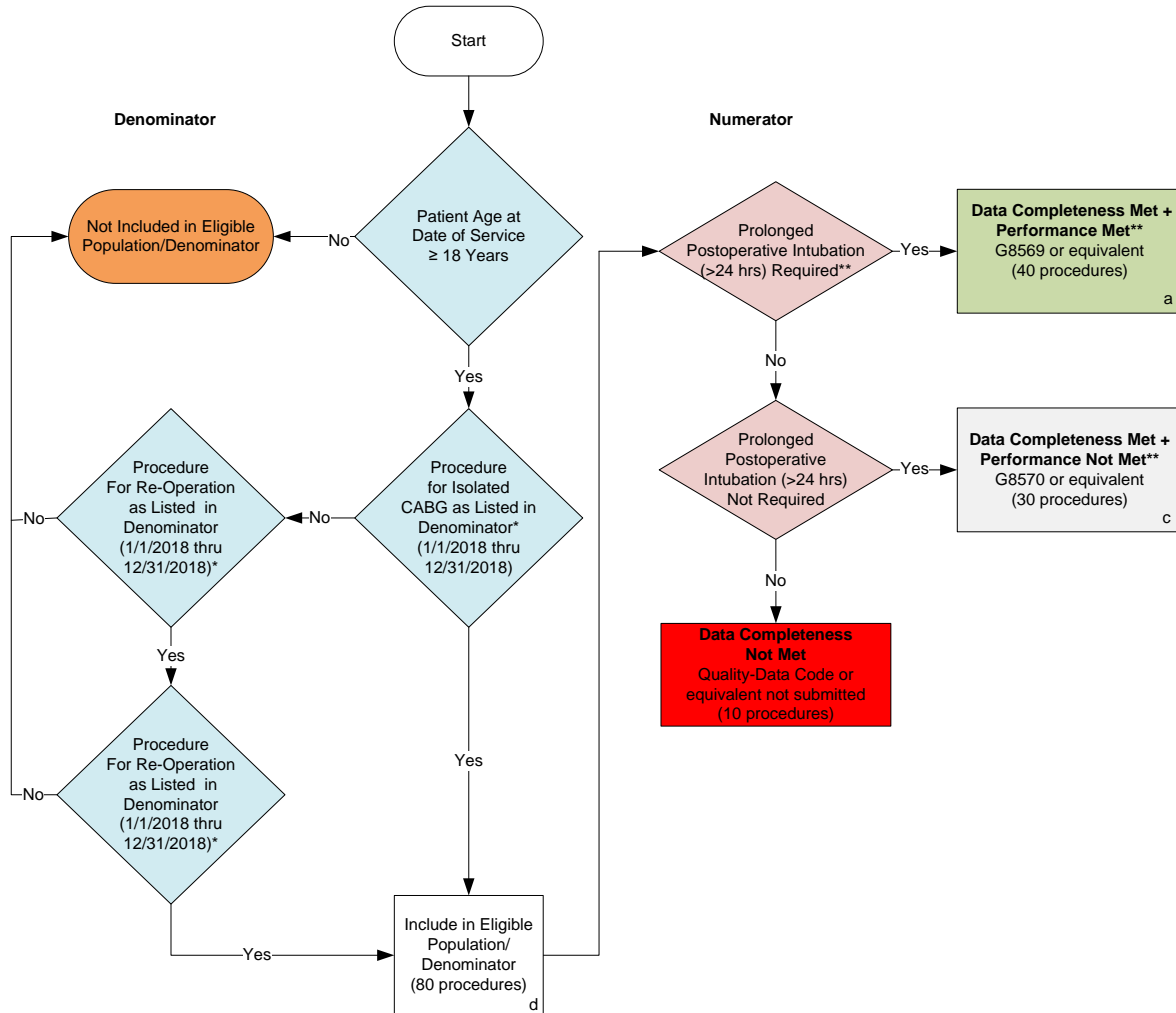
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**2018 Registry Flow for Quality ID #164 NQF #0129:
Coronary Artery Bypass Graft (CABG): Prolonged Intubation**



SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met t (a=40 procedures)} + \text{Performance Not Met (c=30 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = 87.50\%$$

Performance Rate=**

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{40 \text{ procedures}}{70 \text{ procedures}} = 57.14\%$$

*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

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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
#164 NQF #0129: Coronary Artery Bypass Graft (CABG): Prolonged Intubation

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. This flow is for registry-data submission.

1. Start with Denominator
2. Check Patient Age:
 - a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
 - b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Procedure Performed:
 - a. If Procedure for Isolated CABG as Listed in Denominator equals No, proceed to Procedure for Re-Operation as Listed in Denominator.
 - b. If Procedure for CABG as Listed in Denominator equals Yes, include in the Eligible Population.
4. Check Procedure for Re-Operation as Listed in Denominator:
 - a. If Procedure for Re-Operation as Listed in Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Procedure for Re-Operation as Listed in Denominator equals Yes, proceed to Procedure for Re-Operation as Listed in Denominator include in the Eligible Population.
5. Check Procedure for Re-Operation as Listed in Denominator:
 - a. If Procedure for Re-Operation as Listed in 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 the Eligible Population.
6. 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.
7. Start Numerator
8. Check Prolonged Postoperative Intubation (>24 Hours) Required:
 - a. If Prolonged Postoperative Intubation (>24 Hours) Required 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 Prolonged Postoperative Intubation (>24 Hours) Required equals No, proceed to Prolonged Postoperative Intubation (>24 Hours) Not Required.
9. Check Prolonged Postoperative Intubation (>24 Hours) Not Required:
- a. If Prolonged Postoperative Intubation (>24 Hours) Not Required 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 and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 30 procedures in the Sample Calculation.
 - c. If Prolonged Postoperative Intubation (>24 Hours) Not Required equals No, proceed to Data Completeness Not Met.
10. Check Data Completeness Not Met:
- a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 procedures have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met t (a=40 procedures) + Performance Not Met (c=30 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = \underline{87.50\%}$$

Performance Rate=**

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)}} = \frac{40 \text{ procedures}}{70 \text{ procedures}} = \underline{57.14\%}$$