Measure Title
AQI56: Use of Neuraxial Techniques and/or Peripheral Nerve Blocks for Total Knee Arthroplasty (TKA) ††

Measure Description
Percentage of patients, regardless of age, that undergo primary total knee arthroplasty for whom neuraxial anesthesia and/or a peripheral nerve block is performed.

NQS Domain / Meaningful Measures Area
Effective Clinical Care / Appropriate use of Healthcare

Measure Type
Process

High Priority Status
No

Inverse Measure
No

Instructions
This measure is to be reported each time a patient undergoes primary total knee arthroplasty. It is anticipated that qualified anesthesia providers and eligible clinicians who provide denominator-eligible services will submit this measure.

Measure Reporting via the Qualified Clinical Data Registry
CPT codes are used to identify patients who are included in the measure denominator. Registry codes are used to report the numerator of the measure.

Denominator
All patients, regardless of age, who undergo primary total knee arthroplasty

> **Denominator Criteria (Eligible Cases):**
> All patients, regardless of age
> **AND**
> **Patient encounter during the reporting period (CPT):**
> 01402

Denominator Exclusions
- Revision of TKA: CPT 27486, 27487 or **11A09**
- Prosthesis Removal: CPT 27488 or **11A10**

Numerator
Patients for whom neuraxial anesthesia and/or a peripheral nerve block is performed.

> *Numerator Note:* For the purposes of this measure, a peripheral nerve block performed either as primary procedural anesthesia or performed for postoperative analgesia would meet the numerator.

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:

10A78 Neuraxial anesthesia and/or a peripheral nerve block was used

OR

Denominator Exception:

11A01 Documentation of patient reason(s) for not using either neuraxial anesthesia or a peripheral nerve block (e.g., patient refusal)

OR

Performance Not Met:

10A79 Neuraxial anesthesia and/or a peripheral nerve block was NOT used

NQF Number: Not Applicable

eCQM: Not Applicable

Rationale

Regional anesthesia is associated with improved patient outcomes and lower postoperative morbidity and mortality compared to general anesthesia in patients undergoing TKA.[10] Patients receiving neuraxial anesthesia typically lose less blood during surgery, leading to reduced need for many blood transfusions.[11] Additionally, some studies support the notion that spinal anesthesia is associated with lower incidence of surgical site infection when compared to general anesthesia.[12] Peripheral nerve blocks (PNBs) can be used as part of a pain management protocol after knee replacement surgery when compared with systemic analgesia, patients receiving PNBs have better pain scores and use less opioids after surgery.[13] By requiring fewer opioids after surgery, patients also avoid opioid-related side effect such as sedation, respiratory depression, nausea, vomiting, and constipation. They also have better functional outcomes and have overall, a better perioperative experience.[14]

Strength of the evidence supporting neuraxial anesthesia and PNB is sometimes questioned as some of the supporting studies are retrospective in nature and mainly derived from analysis of administrative databases. However, evidence from randomized clinical trials either support better outcomes with regional anesthesia or show that there is no difference with the anesthesia technique.[15]

Clinical Recommendation Statements

---

[10] Memtsoudis SG, Sun X, Chiu YL, et al. Perioperative comparative effectiveness of anesthetic technique in orthopedic patients [published correction appears in Anesthesiology. 2016 Sep;125(3):610]. *Anesthesiology*. 2013;118(5):1046-1058. doi:10.1097/ALN.0b013e318286061d.

[11] Hu S, Zhang ZY, Hua YQ, Li J, Cai ZD. A comparison of regional and general anaesthesia for total replacement of the hip or knee: a meta-analysis. *J Bone Joint Surg Br*. 2009;91(7):935-942. doi:10.1302/0301-620X.91B7.21538.

[12] Zorrilla-Vaca, A., Grant, M. C., Mathur, V., Li, J., & Wu, C. L. (2016). The impact of neuraxial versus general anesthesia on the incidence of postoperative surgical site infections following knee or hip Arthroplasty a meta-analysis. *Regional Anesthesia and Pain Medicine*, 41(5), 555-563. https://doi.org/10.1097/AAP.0000000000000437.

[13] Memtsoudis SG, Poeran J, Cozowicz C, Zubizarreta N, Ozbek U, Mazumdar M. The impact of peripheral nerve blocks on perioperative outcome in hip and knee arthroplasty-a population-based study. *Pain*. 2016;157(10):2341-2349. doi:10.1097/j.pain.0000000000000654.

[14] Terkawi AS, Mavridis D, Sessler DI, et al. Pain Management Modalities after Total Knee Arthroplasty: A Network Meta-analysis of 170 Randomized Controlled Trials. *Anesthesiology*. 2017;126(5):923-937. doi:10.1097/ALN.0000000000001607.

[15] Johnson RL, Koop SL, Burkle CM, et al. Neuraxial vs general anesthesia for total hip and total knee arthroplasty: a systematic review of comparative-effectiveness research. *Br J Anaesth*. 2016;116(2):163-76.

2015 AAOS Evidence-Based Clinical Practice Guideline for Surgical Management of Osteoarthritis of the Knee[16]

"Strong evidence supports that peripheral nerve blockade for total knee arthroplasty (TKA) decreases postoperative pain and opioid requirements. Strength of Recommendation: Strong Evidence: 4 stars"

"Moderate evidence supports that neuraxial anesthesia could be used in total knee arthroplasty (TKA) to improve select perioperative outcomes and complication rates compared to general anesthesia. Strength of Recommendation: Moderate, Evidence: 3 stars"

Data Source: Claims/Paper Medical Record, Registry

Measure Steward: American Society of Anesthesiologists (ASA) / Anesthesia Quality Institute (AQI)

Number of Performance Rates: 1

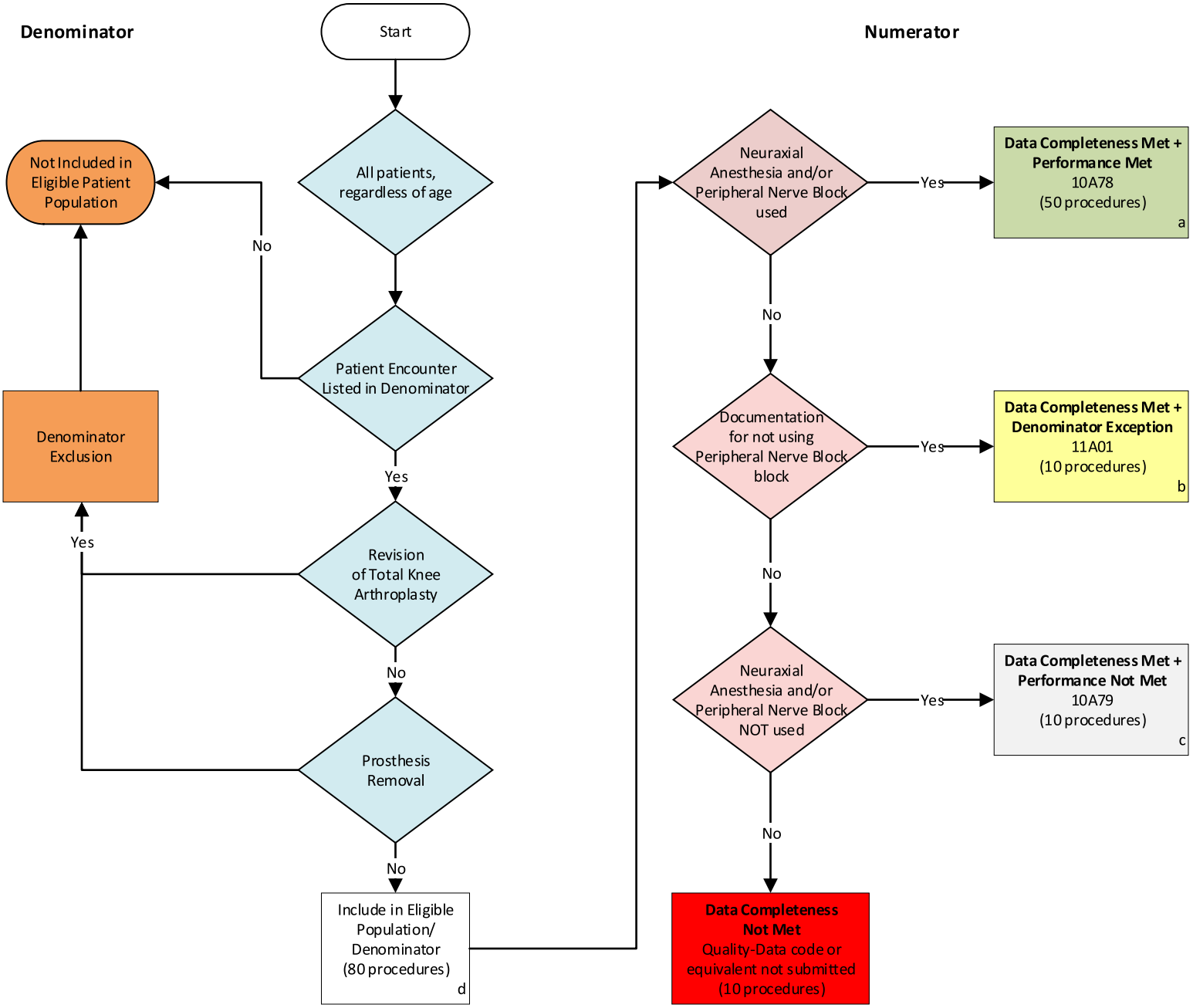
Proportion Measure Scoring: Yes

Continuous Measure Scoring: No

Risk Adjustment: No

[16] McGrory BJ, Weber KL, Jevsevar DS, Sevarino K. Surgical Management of Osteoarthritis of the Knee: Evidence-based Guideline. *J Am Acad Orthop Surg*. 2016 Aug;24(8):e87-93. doi: 10.5435/JAAOS-D-16-00159. PMID: 27355286.

2021 Qualified Clinical Data Registry Measure Flow for AQI ID #56: Use of Neuraxial Techniques and/or Peripheral Nerve Blocks for Total Knee Arthroplasty (TKA)



SAMPLE CALCULATIONS:

Data Completeness =
Performance Met (a=50 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=10 procedures) = 70 procedures = 87.50%
Eligible Population / Denominator (d=80 procedures) = 80 procedures

Performance Rate =
Performance Met (a=50 procedures) = 50 procedures = 83.33%
Data Completeness Numerator (70 procedures) – Denominator Exception (b=10 procedures) = 60 procedures

Version 2.0
November 2020

Measure Title
AQI62: Obstructive Sleep Apnea: Patient Education

Measure Description: Percentage of patients aged 18 years or older, who undergo an elective procedure requiring anesthesia services who are screened for obstructive sleep apnea AND, if positive, have documentation that they received education regarding their risk for obstructive sleep apnea (OSA) prior to PACU discharge.

NQS Domain / Meaningful Measures Area
Effective Clinical Care / Management of Chronic Conditions

Measure Type
Process

High Priority Status
No

Inverse Measure
No

Instructions
This measure is to be reported each time a patient undergoes an elective procedure under anesthesia during the reporting period. It is anticipated that qualified anesthesia providers and eligible clinicians who provide denominator-eligible services will submit this measure.

Measure Reporting via the Qualified Clinical Data Registry
Patient demographics and CPT codes are used to identify patients who are included in the measure denominator. G-codes and Registry Codes are used to capture the numerator.

Denominator
All patients aged 18 years or older, who undergo an elective procedure requiring anesthesia services

Denominator Note: For the purposes of this measure, anesthesia services only include cases using general anesthesia, neuraxial anesthesia and monitored anesthesia care (MAC)

Denominator Criteria (Eligible Cases):
Patients aged 18 years and older
AND
Elective procedure: **G9643**
AND
Patient encounter during the reporting period (CPT):
00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00562, 00563, 00566, 00567, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640,

00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01958, 01960, 01961, 01962, 01963, 01965, 01966, 01967, 01991, 01992

Denominator Exclusions

- Patient has an existing diagnosis of OSA: **G47.33 or 11A29**
- Documentation of patient reason for not providing education regarding risk for OSA (e.g., severe dementia, patient is intubated, patient is not alert or responsive enough to participate in education, other patient reason(s)): **11A30**

Numerator

Patients who are screened for obstructive sleep apnea AND, if positive, have documented education regarding their risk for obstructive sleep apnea prior to PACU discharge

Numerator Definition: Patient education regarding OSA must include documentation that a conversation addressing potential implications of OSA on the patient's perioperative course and any applicable recommendations for follow-up care and disease management occurred. Self-help materials (e.g., brochures, audio/video materials, pamphlets) alone are not sufficient to meet the numerator.

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:

11A31 Positive patient OSA screen AND documented education regarding risk for obstructive sleep apnea prior to PACU discharge

OR

Performance Met:

11A32 Negative patient screen for OSA

OR

Performance Not Met:

11A33 No patient screen for OSA OR positive OSA screen result and no documented education regarding risk for obstructive sleep apnea prior to PACU discharge

NQF Number: Not applicable

eCQM: Not applicable

Rationale
Obstructive Sleep Apnea (OSA) is a common problem in the surgical population, though many patients with OSA are undiagnosed. With improved preoperative assessment for OSA, surgery presents an important opportunity for providers to counsel patients about their risk for OSA and to educate them on the associated perioperative risks associated with the condition. This education is an opportunity to manage patient and family expectations regarding their postoperative course and is a chance to discuss anticipated complications, changes in management, and recommended follow-up care that might be appropriate.

Clinical Recommendation Statements:

2014 ASA Guidelines on Perioperative Management of Patients with Obstructive Sleep Apnea [lix]
"If any characteristics noted during the preoperative evaluation suggest that the patient has OSA, the anesthesiologist and surgeon should jointly decide whether to (1) manage the patient perioperatively based on clinical criteria alone or (2) obtain sleep studies, conduct a more extensive airway examination, and initiate indicated OSA treatment in advance of surgery."

"The patient and his or her family as well as the surgeon should be informed of the potential implications of OSA on the patient's perioperative course."

Data Source: Claims/Paper Medical Record, Registry

Measure Steward: American Society of Anesthesiologists (ASA)/Anesthesia Quality Institute (AQI)

Number of Multiple Performance Rates: Not applicable

Proportion Measure Scoring: Yes

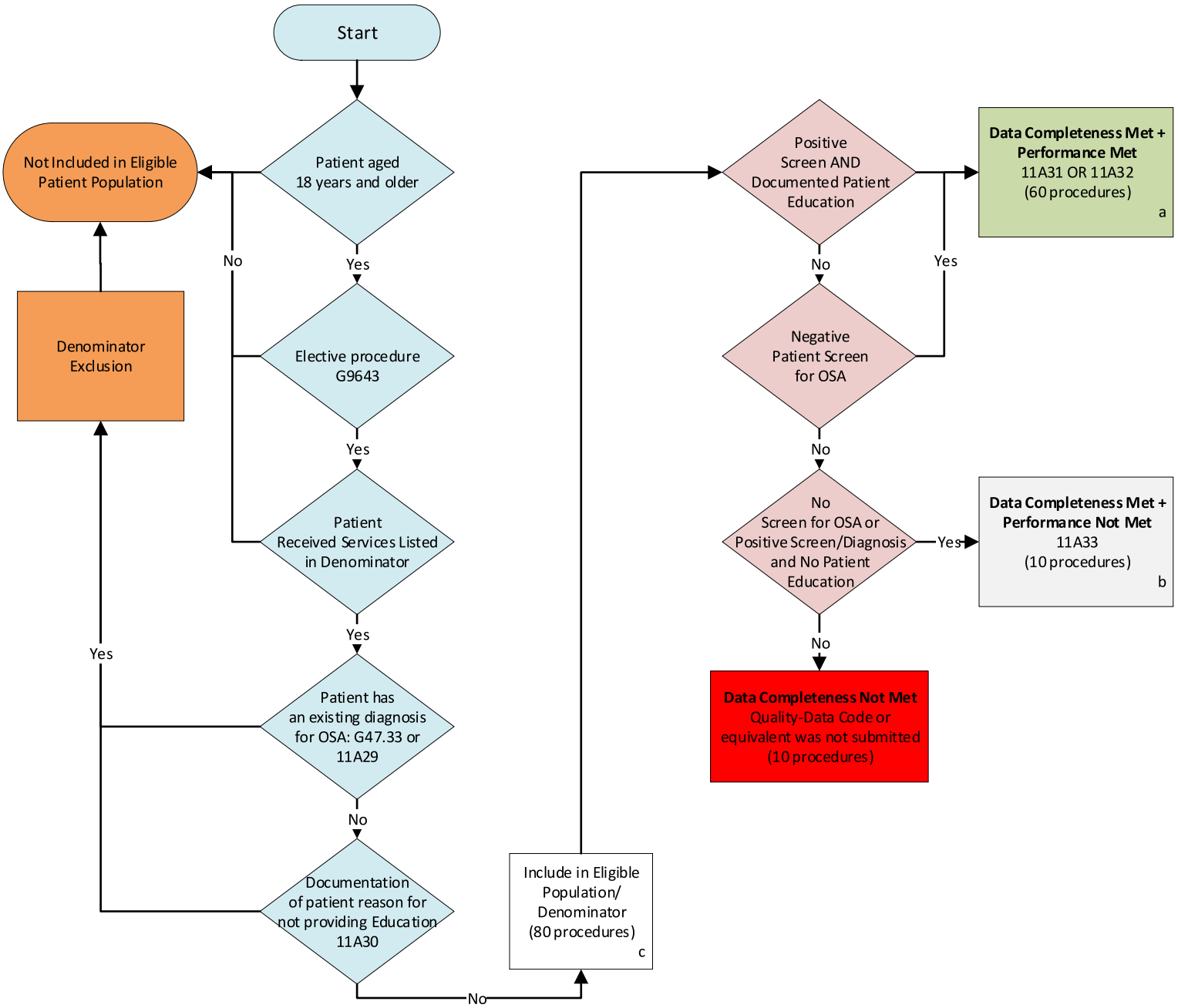
Continuous Measure Scoring: No

Risk Adjustment: No

2021 Qualified Clinical Data Registry Measure Flow for AQI ID #62
Obstructive Sleep Apnea: Patient Education

Denominator

Numerator



SAMPLE CALCULATIONS

Data Completeness =
Performance Met (a=60 procedures) + Performance Not Met (b=10 procedure) = 70 procedures = 87.50%
Eligible Population / Denominator (c=80 procedures) = 80 procedures

Performance Rate =
Performance Met (a=60 procedures) = 60 procedures = 85.71%
Data Completeness Numerator (70 procedures) = 70 procedures

Version 2.0
November 2020

Measure Title
Quantum31: Central Line Ultrasound Guidance

ASA LICENSED THIS MEASURE FROM MEDNAX

Measure Description
Percentage of patients, regardless of age, in whom ultrasound guidance is used by the clinician when placing a central line for those central lines that are placed in the internal jugular location.

NQS Domain / Meaningful Measures Area
Patient Safety / Preventable Healthcare Harm

Measure Type
Process

High Priority Status
Yes

Inverse Measure
No

Instructions
This measure is to be reported each time a clinician places a central line in the internal jugular location (de novo placement). Performance of this metric requires clinician documentation that ultrasound guidance was performed at the time of central line placement.

Measure Reporting via the Qualified Clinical Data Registry
CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. Registry codes are used to report the numerator of the measure.

Denominator
All patients, regardless of age, who undergo internal jugular central line placement by the clinician.

Denominator Criteria (Eligible Cases):
All patients, regardless of age
AND
Patient encounter during the reporting period (CPT):
36555, 36556, 36557, 36558, 36560, 36561, 36563, 36565, 36566, 93503
AND
Internal jugular site insertion **10A66**

Denominator Exclusions / Exceptions
- Tunneled placement through same, existing site as previously placed and currently indwelling non-tunneled placement. **11A39**

Numerator
Use of ultrasound guidance during the central line insertion when central line is placed at the internal jugular site.

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:

10A67 Clinician used ultrasound guidance during central line placement when internal jugular site used.

OR

Performance Not Met:

10A68 Clinician did not use ultrasound guidance during central line placement when internal jugular site used.

NQF Number: Not Applicable

eCQM: Not Applicable

Rationale

The use of ultrasound to guide central venous cannulation has been shown to decrease adverse events including but not limited to decreased risks of cannulation failure, arterial puncture, hematoma, and hemothorax. Benefits that relate to ultrasound guidance are most appreciable for internal jugular site insertion in contrast to either subclavian or femoral insertion.[43,44,45,46]

Data Source: Claims, Medical Record, Registry

Measure Steward: MEDNAX Services, Inc.

Number of Multiple Performance Rates: Not applicable

Proportion Measure Scoring: Yes

Continuous Measure Scoring: No

Risk Adjustment: No

[43] Wu, Shao-yong, et al. "Real-time Two-dimensional Ultrasound Guidance for Central Venous Cannulation." *Anesthesiology* 118.2 (2013): 361.
[44] Bruzoni, Matias, et al. "A prospective randomized trial of ultrasound-vs landmark-guided central venous access in the pediatric population." *Journal of the American College of Surgeons* 216.5 (2013): 939-943.
[45] Bass et al. Ultrasound guidance versus anatomical landmarks for subclavian or femoral vein catheterization. *Cochrane Database Syst Rev.* 2015 Jan 9;1. CD011447.
[46] Bass et al. Ultrasound guidance versus anatomical landmarks for internal jugular vein catheterization. *Cochrane Database Syst Rev.* 2015 Jan 9;1:CD006962.

Quality ID #44 (NQF 0236): Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Medication Management

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of isolated Coronary Artery Bypass Graft (CABG) surgeries for patients aged 18 years and older who received a beta-blocker within 24 hours prior to surgical incision

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. The timeframe for this measure includes the entire 24 hour period prior to the surgical incision time.

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:
Isolated CABG surgeries for patients aged 18 years and older

Definition:
Isolated CABG – Refers to CABG using arterial and/or venous grafts only

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient procedure during the performance period (CPT): 00566, 00567, 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536
OR
Patient procedure during the performance period (CPT): 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536
AND
Patient procedure during the performance period (CPT): 33530

NUMERATOR:
Patients who received a beta-blocker within 24 hours prior to surgical incision of isolated CABG surgeries

Definition:
Medical Reason – MIPS Eligible clinician must document specific reason(s) for not administering beta-blockers.

NUMERATOR NOTE: *Denominator Exception(s) are determined on the date of the denominator eligible encounter.*

Numerator Options:

Performance Met:	Beta blocker administered within 24 hours prior to surgical incision **(4115F)**
OR	
Denominator Exception:	Documentation of medical reason(s) for not administering beta blocker within 24 hours prior to surgical incision (e.g., not indicated, contraindicated, other medical reason) **(4115F *with* 1P)**
OR	
Performance Not Met:	Beta blocker not administered within 24 hours prior to surgical incision, reason not otherwise specified **(4115F *with* 8P)**

RATIONALE:
"Continued adherence to the current ACC/AHA guidelines regarding preoperative B-blockade in CABG surgery, together with good medical judgement, is advisable. Important considerations include perioperative continuation of B-blockade in patients receiving long term therapy and administration and titration of B-blockers to optimal heart rate and blood pressure in B-blocker naïve patients, initiated as long before surgery as possible (preferably weeks before in elective patients)" (JAMA Internal Medicine, August 2014, Volume 174, Number 8).

"Despite significant developments in PCI, CABG remains the most commonly used treatment option for patients with complex CAD and high-risk patients" (El Bardissi et al., 2012, p.274).

Postoperative atrial fibrillation (POAF) is a common complication following cardiac surgery, occurring in 25-40% of patients (Crystal, 2004, Burgess, 2006). POAF has been associated with increased rates of post-operative morbidity such as cerebrovascular accidents (CVA), infections (e.g. septicemia, pneumonia, and mediastinitis), renal failure and mortality and consequently, increased costs (Mariscalco, 2008, Crystal, 2004, Bramer, 2010).

"Postoperative AF after cardiac operations is associated with postoperative morbidities such as cerebrovascular accidents (CVA), infections (e.g., septicemia, pneumonia and mediastinitis), and renal failure. Previous studies have suggested that POAF after CABG is related to early and late mortality" (Bramer et al., 2010, p.443). "Development of AF immediately after coronary artery bypass surgery (CABG) results in a longer stay in the intensive care unit and in hospital, together with a significantly higher (two-to three-fold) risk of post-operative stroke" (Burgess et al., 2006, p.2846).

Prophylactic administration of beta-blockers has been shown to reduce the risk of POAF and mortality following isolated coronary artery bypass graft surgery (Connolly, 2003, Mariscalco, 2008, Ferguson, 2002). Khan's meta-analysis of RCTs (2013) found that "Preoperative BB prophylaxis initiation resulted in 51% reduction in the incidence of AF as compared to controls, however these results were not statistically significant" (p.62-63).

"According to our findings, perioperative application of beta-blockers still plays a pivotal role in cardiac surgery, as they can substantially reduce the high burden of supraventricular and ventricular arrhythmias in the aftermath of surgery. Their influence on mortality, AMI, stroke, congestive heart failure, hypotension and bradycardia in this setting remains unclear" (Blessberger et al., 2014, p.3). Recent studies (Kohsaka et al. 2016, Brinkman et al. 2014) researched the use of preoperative β-blockers and concluded the use of β-blockers did not improve outcomes.

The Brinkman study concluded "Preoperative β-blocker use among patients undergoing nonemergent CABG surgery who have not had a recent myocardial infarction was not associated with improved perioperative outcomes" (p.1320). The Kohsaka research concluded "in a propensity-matched, balanced cohort of CABG patients, the use of β-blockers was not associated with decreased mortality or in-hospital complications, regardless of the patient's preoperative risk profile. The present findings suggest that preoperative β-blocker use in patients undergoing CABG is not associated with improved short-term outcomes" (p.53).

A scientific statement by the AHA in 2015 continues to support the use of perioperative β-blockers in patients undergoing CABG surgery. See Clinical Recommendation Statements for recommendation and grade.

CLINICAL RECOMMENDATION STATEMENTS:

Secondary Prevention After Coronary Artery Bypass Graft Surgery: A Scientific Statement From the American Heart Association (2015)

β-Blocker Therapy Recommendations
1. All CABG patients should be prescribed perioperative β-blocker therapy to prevent postoperative AF, ideally starting before surgery, unless contraindicated (i.e., bradycardia, severe reactive airway disease) (*Class I; Level of Evidence A*).

Preoperative Beta-blockers (ACCF/AHA, 2011):

Class I

1) Beta-blockers should be administered as soon as possible, and for at least 24 hours before CABG to all patients without contraindications to reduce the incidence or clinical sequelae of postoperative AF. (Level of Evidence: B), (ACCF/AHA, 2011, p.e152)

Class IIa

1) "Preoperative use of beta-blockers in patients without contraindications, particularly in those with an LV ejection fraction (LVEF) greater than 30%, can be effective in reducing the risk of in-hospital mortality." (Level of Evidence: B), (ACCF/AHA, 2011, p.e152)
2) "Beta-blockers can be effective in reducing the incidence of perioperative myocardial ischemia." (Level of Evidence: B), (ACCF/AHA, 2011, p.e152)

Class IIb

1) "The effectiveness of preoperative beta-blockers in reducing in-hospital mortality rate in patients with LVEF less than 30% is uncertain." (Level of Evidence: B), (ACCF/AHA, 2011, p.e152)

Treatment of arrhythmias after revascularization (ESC/EACTS, 2014)

Class I

1) "Beta-blockers are recommended to decrease the incidence of atrial fibrillation after CABG in the absence of contraindications." (Level of Evidence: A), (ESC/EACTS, 2014, p.146)

COPYRIGHT:

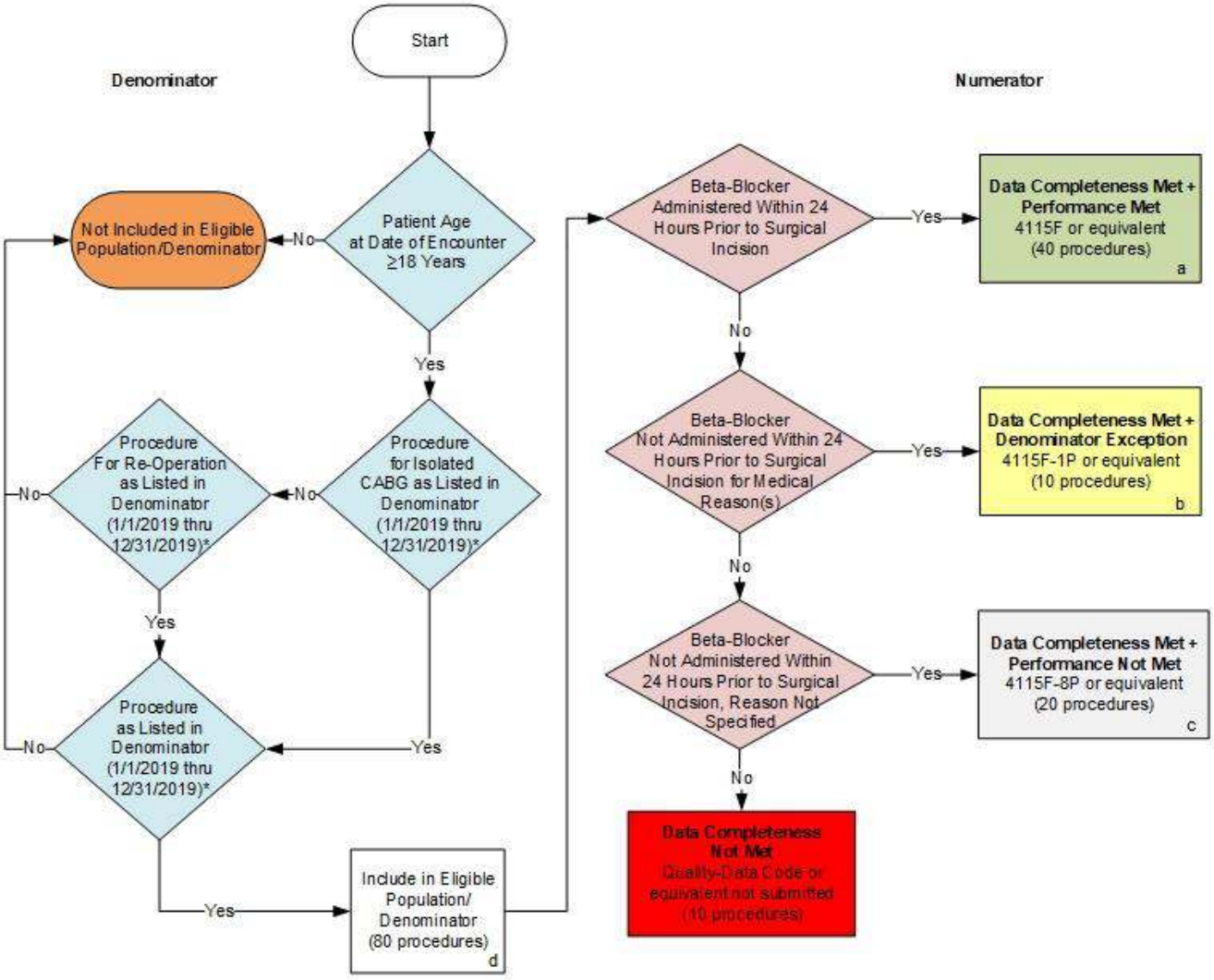
These measures were developed by Quality Insights, Inc. as a special project under the Quality Insights' Medicare Quality Improvement Organization (QIO) contract HHSM-500-2005-PA001C with the Centers for Medicare & Medicaid Services. These measures are in the public domain.

Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. Mathematica Policy Research disclaims all liability for use or accuracy of any third-party codes contained in the specifications. CPT® contained in the Measure specifications is copyright 2004- 2019 American Medical Association. All Rights Reserved. These performance measures are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

2020 Clinical Quality Measure Flow for Quality ID #44 NQF #0236: Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery

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



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**

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

Performance Rate=

Performance Met (a=40 procedures) = 40 procedures = **66.67%**

Data Completeness Numerator (70 procedures) – Denominator Exception (b=10 procedures) = 60 procedures

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

2020 Clinical Quality Measure Flow Narrative for Quality ID#44 NQF #0236: Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery

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

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age at Date of Encounter is greater than or equal to 18 Years equals No during the performance period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age at Date of Encounter is greater than or equal to 18 Years equals Yes during the performance period, proceed to check Procedure for Isolated CABG.
3. Check Procedure for Isolated CABG:
    a. If Procedure for Isolated CABG as Listed in the Denominator equals No, proceed to check Procedure for Re-Operation.
    b. If Procedure for Isolated CABG as Listed in the Denominator equals Yes, proceed to check Procedure as Listed in the Denominator.
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 the Denominator equals Yes, proceed to check Procedure as Listed in the Denominator.
5. Check Procedure as Listed in the Denominator:
    a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in the 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 Beta-Blocker Administered Within 24 Hours Prior to Surgical Incision:
    a. If Beta-Blocker Administered Within 24 Hours Prior to Surgical Incision equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented as 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 Beta-Blocker Administered Within 24 Hours Prior to Surgical Incision equals No, proceed to check Beta-

Blocker Not Administered Within 24 Hours Prior to Surgical Incision for Medical Reason(s).

9. Check Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision for Medical Reason(s):

    a. If Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision for Medical Reason(s) equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter b equals 10 procedures in the Sample Calculation.

    c. If Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision for Medical Reason(s) equals No, proceed to check Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision, Reason Not Specified.

10. Check Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision, Reason Not Specified:

    a. If Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision, Reason Not Specified equals Yes, include in the Data Completeness Met and Performance Not Met.

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

    c. If Beta-Blocker Not Administered Within 24 Hours Prior to Surgical Incision, Reason Not Specified equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, 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=

$$\frac{\text{Performance Met (a=40 procedures)} + \text{Denominator Exception (b=10 procedures)} + \text{Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = \mathbf{87.50\%}$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)} - \text{Denominator Exception (b=10 procedures)}} = \frac{40 \text{ procedures}}{60 \text{ procedures}} = \mathbf{66.67\%}$$

Quality ID #76: Prevention of Central Venous Catheter (CVC) - Related Bloodstream Infections – National Quality Strategy Domain: Patient Safety – Meaningful Measure Area: Healthcare Associated Infections

2019 COLLECTION TYPE:
MEDICARE PART B CLAIMS

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of patients, regardless of age, who undergo central venous catheter (CVC) insertion for whom CVC was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

INSTRUCTIONS:
This measure is to be submitted **each time** a CVC insertion is performed during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who perform CVC insertion will submit this measure.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians using Medicare Part B claims. The listed denominator criteria are used to identify the intended patient population. The numerator quality-data codes included in this specification are used to submit the quality actions allowed by the measure on the claim form(s). All measure-specific coding should be submitted on the claim(s) representing the denominator eligible encounter and selected numerator option.

DENOMINATOR:
All patients, regardless of age, who undergo CVC insertion

Denominator Criteria (Eligible Cases):
Patient procedure during the performance period (CPT): 36555, 36556, 36557, 36558, 36560, 36561, 36563, 36565, 36566, 36568, 36569, 36570, 36571, 36572, 36573, 36578, 36580, 36581, 36582, 36583, 36584, 36585, 93503

NUMERATOR:
Patients for whom central venous catheter (CVC) was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

Definitions:
Maximal Sterile Barrier Technique – includes **all** of the following elements: Cap AND mask AND sterile gown AND sterile gloves AND sterile full body drape.
Sterile Ultrasound Techniques – require sterile gel and sterile probe covers.

Numerator Quality-Data Coding Options:
All Elements of Maximal Sterile Barrier Technique Followed
***Performance Met:* CPT II 6030F:** All elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

OR

All Elements of Maximal Sterile Barrier Technique Not Followed for Medical Reasons
Append a modifier (1P) to CPT Category II code 6030F to report documented circumstances that appropriately exclude patients from the denominator.

***Denominator Exception:* 6030F *with* 1P:** Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion)

OR

All Elements of Maximal Sterile Barrier Technique Not Followed, Reason not Otherwise Specified
Append a reporting modifier (8P) to CPT Category II code 6030F to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

***Performance Not Met:* 6030F *with* 8P:** All elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques not followed, reason not otherwise specified

RATIONALE:

Catheter-related bloodstream infection is a costly complication of central venous catheter insertion, but may be avoided with routine use of aseptic technique during catheter insertion. This measure is constructed to require that all of the listed elements of aseptic technique are followed and documented. Hospital-acquired bloodstream infections are a common complication that leads to increased costs and mortality. It is estimated that approximately 51% of hospital-acquired bloodstream infections occur in an intensive care unit (ICU), with the presence of a central venous catheter being the largest risk factor for the development of a bloodstream infection in the hospital. Catheter-related bloodstream infections (CRBSIs) commonly occur when the catheter becomes contaminated by microbes on the skin during insertion. The use of maximal sterile barriers, including sterile gloves, long-sleeved sterile gown, mask, cap, and full-sized sterile drape, during insertion of the catheter has been shown to cost effectively reduce CRBSI rates compared to the use of less stringent precautions.

CLINICAL RECOMMENDATION STATEMENTS:

2011 Guidelines for Prevention of Intravascular Catheter-Related Infections. CDC Healthcare Infection Control Practices Advisory Committee (HICPAC).

Maximal sterile barrier precautions: Use maximal sterile barrier precautions, including the use of a cap, mask, sterile gown, sterile gloves, and a sterile full body drape, for the insertion of CVCs, PICCS, or guidewire exchange (CDC) (Category IB)

Hand hygiene: Perform hand hygiene procedures, either by washing hands with conventional soap and water or with alcohol-based hand rubs (ABHR) (Category IB)

Skin Preparation: Prepare clean skin with a >0.5% chlorhexidine preparation with alcohol before central venous catheter and peripheral arterial catheter insertion and during dressing changes. If there is a contraindication to chlorhexidine, tincture of iodine, an iodophor, or 70% alcohol can be used as alternatives (Category IB)

Sterile Ultrasound: The Food and Drug Administration recommends that policies and clinical practice standards be reviewed to ensure the use of sterile ultrasound gel. Once a container of sterile or non-sterile ultrasound gel is opened, it is no longer sterile and contamination during ongoing use is possible.

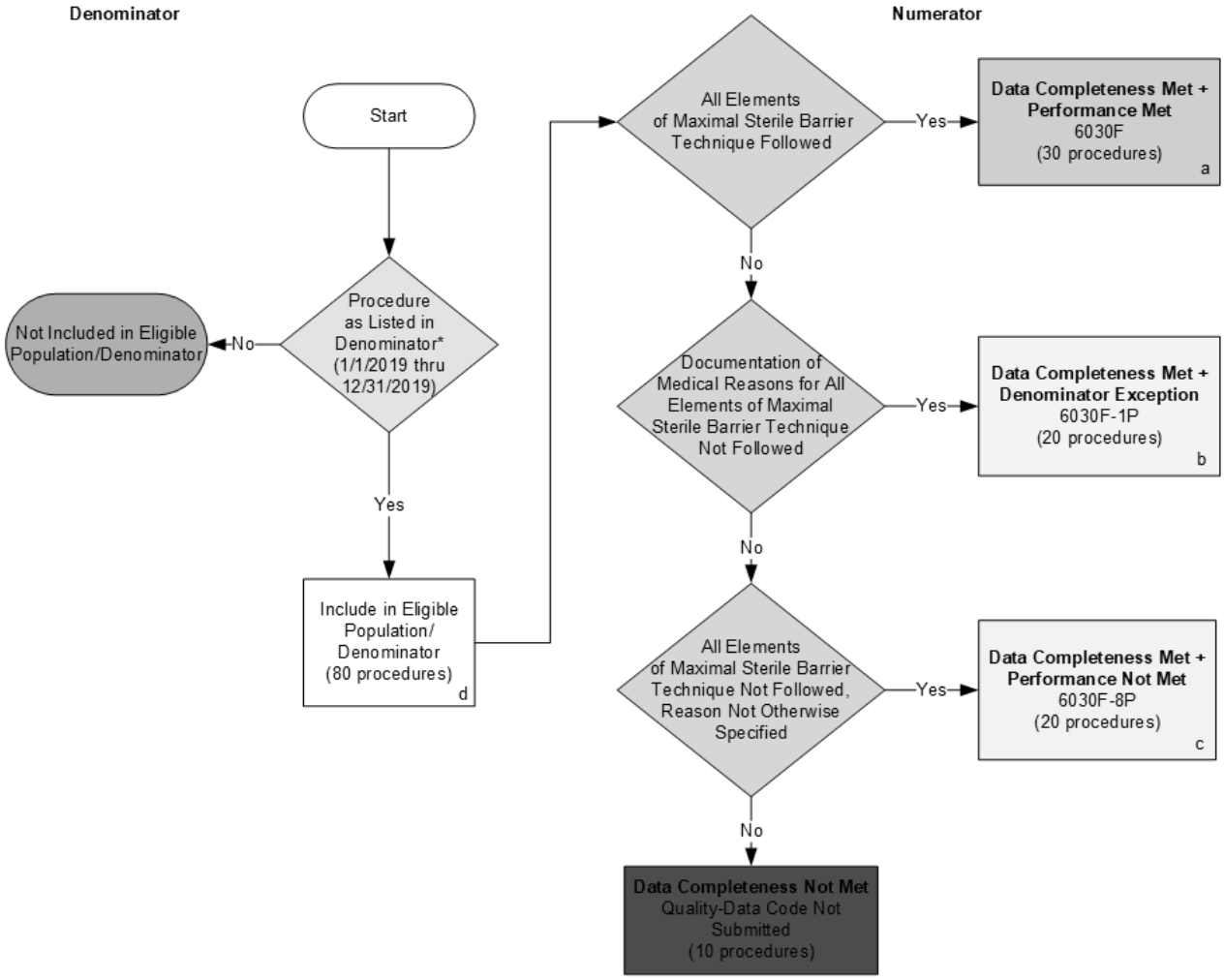
2012 American Society of Anesthesiologists Practice Guidelines for Central Venous Access

In preparation for the placement of central venous catheters, use aseptic techniques (e.g., hand washing) and maximal barrier precautions (e.g., sterile gowns, sterile gloves, caps, masks covering both mouth and nose, and full-body drapes).

2014 American Institute for Ultrasound in Medicine Practice Parameter for the Performance of Selected Ultrasound-Guided Procedures

The use of sterile drapes, sterile probe covers, and sterile ultrasound gel may provide the best method to reduce the risk of contamination and infection.

2019 Medicare Part B Claims Flow for Quality ID #76:
Prevention of Central Venous Catheter (CVC) – Related Bloodstream Infections



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=30 procedures) + Denominator Exception (b=20 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**

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

Performance Rate=

Performance Met (a=30 procedures) = 30 procedures = **60.00%**

Data Completeness Numerator (70 procedures) – Denominator Exception (b=20 procedures) = 50 procedures

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

NOTE: Submission Frequency: Procedure

v3

2019 Medicare Part B Claims Flow Narrative for Quality ID #76: Prevention of Central Venous Catheter (CVC) – Related Bloodstream Infections

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Procedure Performed:
    a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in the Denominator equals Yes, include in the Eligible Population.
3. 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.
4. Start Numerator
5. Check All Elements of Maximal Sterile Barrier Technique Followed:
    a. If All Elements of Maximal Sterile Barrier Technique Followed 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 30 procedures in the Sample Calculation.
    c. If All Elements of Maximal Sterile Barrier Technique Followed equals No, proceed to check Documentation of Medical Reasons for All Elements of Maximal Sterile Barrier Technique Not Followed.
6. Check Documentation of Medical Reasons for All Elements of Maximal Sterile Barrier Technique Not Followed:
    a. If Documentation of Medical Reasons for All Elements of Maximal Sterile Barrier Technique Not Followed equals Yes, include in Data Completeness Met and Denominator Exception.
    b. Data Completeness Met and Denominator Exception is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 20 procedures in the Sample Calculation.
    c. If Documentation of Medical Reasons for All Elements of Maximal Sterile Barrier Technique Not Followed equals No, proceed to check All Elements of Maximal Sterile Barrier Technique Not Followed, Reason Not Otherwise Specified.
7. Check All Elements of Maximal Sterile Barrier Technique Not Followed, Reason Not Otherwise Specified:
    a. If All Elements of Maximal Sterile Barrier Technique Not Followed, Reason Not Otherwise Specified equals Yes, include in the Data Completeness Met and Performance Not Met.
    b. 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 20 procedures in the Sample Calculation.

c. If All Elements of Maximal Sterile Barrier Technique Not Followed, Reason Not Otherwise Specified equals No, proceed to check Data Completeness Not Met.

8. Check Data Completeness Not Met:

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

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=30 procedures) + Denominator Exception (b=20 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**
Eligible Population / Denominator (d=80 procedures) = 80 procedures

Performance Rate=
Performance Met (a=30 procedures) = 30 procedures = **60.00%**
Data Completeness Numerator (70 procedures) – Denominator Exception (b=20 procedures) = 50 procedures

Quality ID #404: Anesthesiology Smoking Abstinence
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention and Treatment of Opioid and Substance Use Disorders

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Intermediate Outcome – High Priority

DESCRIPTION:
The percentage of current smokers who abstain from cigarettes prior to anesthesia on the day of elective surgery or procedure

INSTRUCTIONS:
This measure is to be submitted **each time** an elective surgery, diagnostic, or pain procedure is performed under anesthesia during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

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 aged 18 years and older who are evaluated in preparation for elective surgical, diagnostic, or pain procedure requiring anesthesia services and identified as a current smoker prior to the day of the surgery or procedure with instruction from anesthesiologist or proxy to abstain from smoking on the day of surgery or procedure

> ***DENOMINATOR NOTE:*** *Preoperative smoking cessation instruction can be performed by an anesthesiologist or proxy, including but not limited to a surgeon, nursing staff, or other preoperative care team member, as part of preoperative evaluation.*

> **Denominator Criteria (Eligible Cases):**
> Patients aged ≥ 18 years on date of service
> **AND**
> **Patient procedure during the performance period (CPT):** 00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00563, 00566, 00567, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232,

01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01958, 01960, 01961, 01966, 01991, 01992, 27095, 27096, 62320, 62321, 62322, 62323, 62324, 62325, 62326, 62327, 64400, 64405, 64408, 64415, 64416, 64417, 64418, 64420, 64421, 64425, 64430, 64435, 64445, 64446, 64447, 64448, 64449, 64450, 64455, 64461, 64463, 64479, 64483, 64486, 64487, 64488, 64489, 64490, 64493, 64505, 64510, 64517, 64520, 64530, 0228T, 0230T

AND

Current smoker (e.g. cigarette, cigar, pipe, e-cigarette or marijuana): G9642

AND

Elective surgery: G9643

AND

Received instruction from the anesthesiologist or proxy prior to the day of surgery to abstain from smoking on the day of surgery: G9497

NUMERATOR:

Patients who abstained from smoking prior to anesthesia on the day of surgery or procedure

Definition:

Abstinence - Defined by either patient self-report or an exhaled carbon monoxide level of < 10 ppm.

Numerator Options:

Performance Met:	Patients who abstained from smoking prior to anesthesia on the day of surgery or procedure **(G9644)**
OR	
Performance Not Met:	Patients who did not abstain from smoking prior to anesthesia on the day of surgery or procedure **(G9645)**

RATIONALE:

Each year, approximately 10 million cigarette smokers require surgery and anesthesia in the U.S. Smoking is a significant independent risk factor for perioperative heart, lung, and wound-related complications. There now is good evidence that perioperative abstinence from smoking reduces the risk of heart, lung, and wound-related perioperative complications, and that the perioperative period represents a “teachable moment” for smoking cessation that improves long-term abstinence rates. While a longer duration of abstinence is associated with a greater benefit for patients, even just abstinence on the morning of surgery is associated with reduced levels of nicotine and carbon monoxide levels and a reduced risk of myocardial ischemia and surgical site infections. Evidence shows that perioperative tobacco cessation interventions can 1) increase perioperative abstinence rates in surgical patients who smoke and 2) decrease the rate of perioperative complications. Recent reviews identified a range of effective interventions, from brief counseling to the use of behavioral therapy and pharmacotherapy, that physicians who care for surgical patients (e.g., anesthesiologists and surgeons) can incorporate into their practices to improve perioperative smoking abstinence. Unfortunately, evidence also suggests that few of these physicians take advantage of the opportunity to intervene, and that many surgical patients still smoke even on the morning of surgery. If more surgical patients get help to quit smoking around the time of surgery, this will both reduce the rate of smoking-related perioperative complications such as wound infection, and lead to long-term improvements in health, as the average smoker gains 6-8 life years if they quit. Thus, this measure on abstinence on the morning of surgery not only directly affects acute surgical risk, but also serves as a marker for the provision of effective preoperative tobacco use interventions.

CLINICAL RECOMMENDATION STATEMENTS:

Clinical Practice Guideline for Treating Tobacco Use and Dependence: 2008 Update, U.S. Department of Health and Human Services Public Health Service

It is essential that clinicians and health care delivery systems consistently identify and document tobacco use status and treat every tobacco user seen in a health care setting.

Tobacco dependence treatments are effective across a broad range of populations. Clinicians should encourage every patient willing to make a quit attempt to use the counseling treatments and medications recommended in this Guideline.

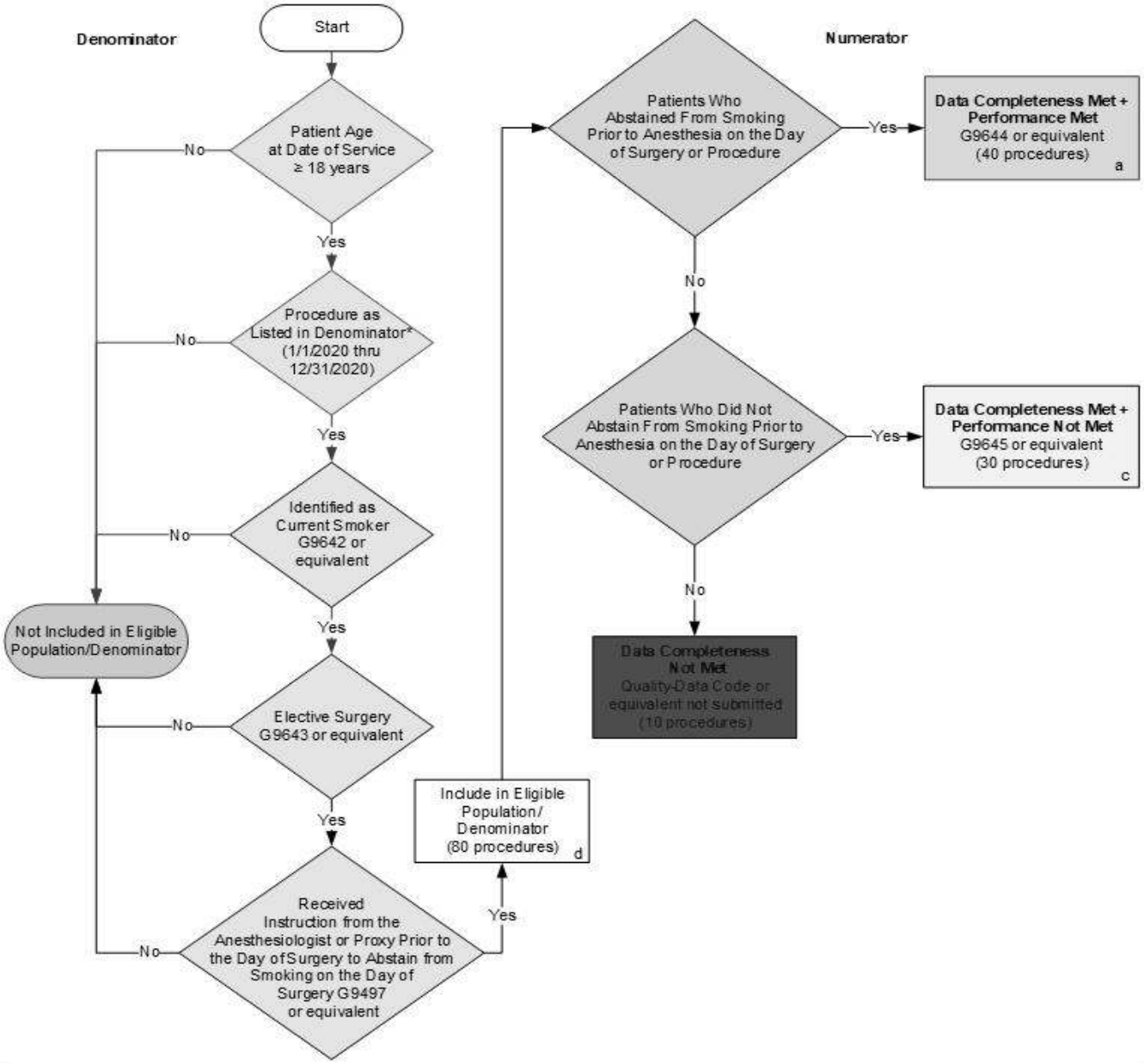
Brief tobacco dependence treatment is effective. Clinicians should offer every patient who uses tobacco at least the brief treatments shown to be effective in this Guideline.

2018 American Society of Anesthesiologists Statement on Smoking Cessation

Approximately one of every five American adults smoke cigarettes and up to half of these individuals will die prematurely because of their use of tobacco. The majority of these smokers want to quit. Each year, millions of cigarette smokers require surgery and anesthesia in the United States. Smoking has a direct impact on postoperative outcomes such as wound healing, and abstinence from smoking may improve these outcomes. In addition, surgery may represent a teachable moment for promotion of long-term smoking cessation: i.e., smokers may be more receptive to messages urging them to quit. For these reasons, the scheduling of surgery represents an excellent opportunity for cigarette smokers to quit smoking. Patients should abstain from smoking for as long as possible both before and after surgery, and they should obtain help in doing so. Patients can receive help in a variety of ways, including telephone quitlines (1-800-QUITNOW), which are of proven efficacy and are now readily available to all Americans.

2020 Clinical Quality Measure Flow for Quality ID #404: Anesthesiology Smoking Abstinence

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.
NOTE: Submission Frequency: Procedure

2020 Clinical Quality Measure Flow Narrative for Quality ID #404: Anesthesiology Smoking Abstinence

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

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Service equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years on Date of Service equals Yes, proceed to check Procedure Performed.
3. Check Procedure Performed:
    a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in the Denominator equals Yes, proceed to check Identified as Current Smoker.
4. Check Identified as Current Smoker:
    a. If Identified as Current Smoker equals No, do not include in Eligible Population. Stop Processing.
    b. If Identified as Current Smoker equals Yes, proceed to check Elective Surgery.
5. Check Elective Surgery:
    a. If Elective Surgery equals No, do not include in Eligible Population. Stop Processing.
    b. If Elective Surgery equals Yes, proceed to check Received Instruction from the Anesthesiologist or Proxy Prior to the Day of Surgery to Abstain from Smoking on the Day of Surgery.
6. Check Received Instruction from the Anesthesiologist or Proxy Prior to the Day of Surgery to Abstain from Smoking on the Day of Surgery.
    a. If Received Instruction from the Anesthesiologist or Proxy Prior to the Day of Surgery to Abstain from Smoking on the Day of Surgery equals No, do not include in Eligible Population. Stop Processing.
    b. If Received Instruction from the Anesthesiologist or Proxy Prior to the Day of Surgery to Abstain from Smoking on the Day of Surgery equals Yes, include in Eligible Population.
7. 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.
8. Start Numerator
9. Check Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure:
    a. If Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure 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 Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals No, proceed to check Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure.

10. Check Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure:

    a. If Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure 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 in the Sample Calculation listed at the end of this document. Letter c equals 30 procedures in the Sample Calculation.

    c. If Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals No, proceed to check Data Completeness Not Met.

11. 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=

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%**

Quality ID #424 (NQF 2681): Perioperative Temperature Management
– National Quality Strategy Domain: Patient Safety
– Meaningful Measure Area: Preventable Healthcare Harm

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Outcome – High Priority

DESCRIPTION:
Percentage of patients, regardless of age, who undergo surgical or therapeutic procedures under general or neuraxial anesthesia of 60 minutes duration or longer for whom at least one body temperature greater than or equal to 35.5 degrees Celsius (or 95.9 degrees Fahrenheit) was achieved within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time

INSTRUCTIONS:
This measure is to be submitted **each time** any procedure including surgical, therapeutic or diagnostic is performed under general or neuraxial anesthesia during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

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, regardless of age, who undergo surgical or therapeutic procedures under general or neuraxial anesthesia of 60 minutes duration or longer

Denominator Instructions:
The anesthesia time used for this measure should be the time recorded in the anesthesia record.

Denominator Criteria (Eligible Cases):
All patients, regardless of age
AND
Patient procedure during the performance period (CPT): 00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00834, 00836, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232,

01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01961, 01962, 01963, 01965, 01966

AND

Anesthesia of 60 minutes duration or longer: 4255F

AND NOT

DENOMINATOR EXCLUSIONS:

Monitored Anesthesia Care (MAC): G9654

OR

Peripheral Nerve Block (PNB): G9770

NUMERATOR:

Patients for whom at least one body temperature greater than or equal to 35.5 degrees Celsius (or 95.9 degrees Fahrenheit) was achieved within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time

Numerator Options:

Performance Met:	At least 1 body temperature measurement equal to or greater than 35.5 degrees Celsius (or 95.9 degrees Fahrenheit) achieved within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time **(G9771)**
OR	
Denominator Exception:	Documentation of medical reason(s) for not achieving at least 1 body temperature measurement equal to or greater than 35.5 degrees Celsius (or 95.9 degrees Fahrenheit) within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time (e.g., Emergency cases, Intentional hypothermia, etc.) **(G9772)**
OR	
Performance Not Met:	At least 1 body temperature measurement equal to or greater than 35.5 degrees Celsius (or 95.9 degrees Fahrenheit) not achieved within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time, Reason Not Given **(G9773)**

RATIONALE:

A drop in core temperature during surgery, known as perioperative hypothermia, can result in numerous adverse effects, which can include adverse myocardial outcomes, subcutaneous vasoconstriction, increased incidence of surgical site infection, and impaired healing of wounds. The desired outcome, reduction in adverse surgical effects due to perioperative hypothermia, is affected by maintenance of normothermia during surgery.

Unintended perioperative hypothermia occurs in up to 20% of surgical patients. An observational cohort study in a pediatric setting found that more than 50% of children experienced intraoperative hypothermia. Pediatric patients undergoing major surgery were at greater risk of intraoperative hypothermia.

CLINICAL RECOMMENDATION STATEMENTS:

Evidence-Based Clinical Practice Guideline for the Promotion of Perioperative Normothermia: Second Edition; American Society of PeriAnesthesia Nurses (ASPAN), 2010

Preadmission/Preoperative Recommendations

Assessment: Assess for risk factors for perioperative hypothermia (Class I, Level C); Measure patient temperature on admission (Class I, Level C); Determine patient's thermal comfort level (Class I, Level C); Assess for signs and symptoms of hypothermia (Class I, Level C); Document and communicate all risk factor assessment findings to all members of the anesthesia/surgical team (Class I, Level A)

Interventions: Implement passive thermal care measures (Class I, Level B); Maintain ambient room temperature at or above 24 degrees Celsius (Class I, Level C); Institute active warming for patients who are hypothermic (Class IIb, Level B); Consider preoperative warming to reduce the risk of intra/postoperative hypothermia (Class IIb, Level B)

Intraoperative Recommendations

Assessment: Identify patient's risk factors for unplanned preoperative hypothermia (Class I, Level C); Frequent intraoperative temperature monitoring should be considered in all cases (Class I, Level C); Assess for signs and symptoms of hypothermia (Class IIb, Level C); Determine patient's thermal comfort level (Class IIb, Level C); Document and communicate all risk factor assessment findings to all members of the anesthesia/surgical team (Class I, Level A)

Interventions: Limit skin exposure to lower ambient environmental temperatures (Class I, Level C); Initiate passive warming measures (Class I, Level C); Maintain ambient room temperature from 20-25 degrees Celsius based on Association of periOperative Registered Nurses (AORN) and architectural recommendations (Class I, Level C); Patients undergoing a procedure with an anticipated anesthesia time greater than 30 minutes (Class I, Level C) and/or who are hypothermic preoperatively (Class I, Level A), and/or patients at risk for hypothermia (Class I, Level C) or at increased risk for suffering its complications (Class I, Level C) – Forced air warming should be implemented (Class I, Level A); There is evidence to suggest that alternative active warming measures may maintain normothermia when used alone or in combination with forced air warming (Class IIb, Level B). These warming measures include: Warmed IV fluids (Class IIa, Level B), Warmed irrigation fluids (Class IIb, Level B), Circulating water garments (Class IIb, Level B), Circulating water mattresses (Class IIb, Level B), Radiant heat (Class IIb, Level B), Gel pad surface warming (Class IIa, Level B), Resistive heating (Class IIa, Level B) (ASPAN, 2010)

Guideline on Perioperative Cardiovascular Evaluation and Management of Patients Undergoing Noncardiac Surgery; American College of Cardiology/American Heart Association Task Force on Practice Guidelines, 2014

Maintenance of normothermia may be reasonable to reduce perioperative cardiac events in patients undergoing noncardiac surgery (Class IIb Recommendation, Level of Evidence B)

COPYRIGHT:

The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications.

The measure, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, eg, use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the measure for commercial gain, or incorporation of the measure into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the measure requires a license agreement between the user and the PCPI® Foundation (PCPI®) or American Society of Anesthesiologists (ASA). Neither ASA, nor the American Medical Association (AMA), nor the AMA-convened Physician Consortium for Performance Improvement® (AMA-PCPI), now known as the PCPI, nor their members shall be responsible for any use of the measure.

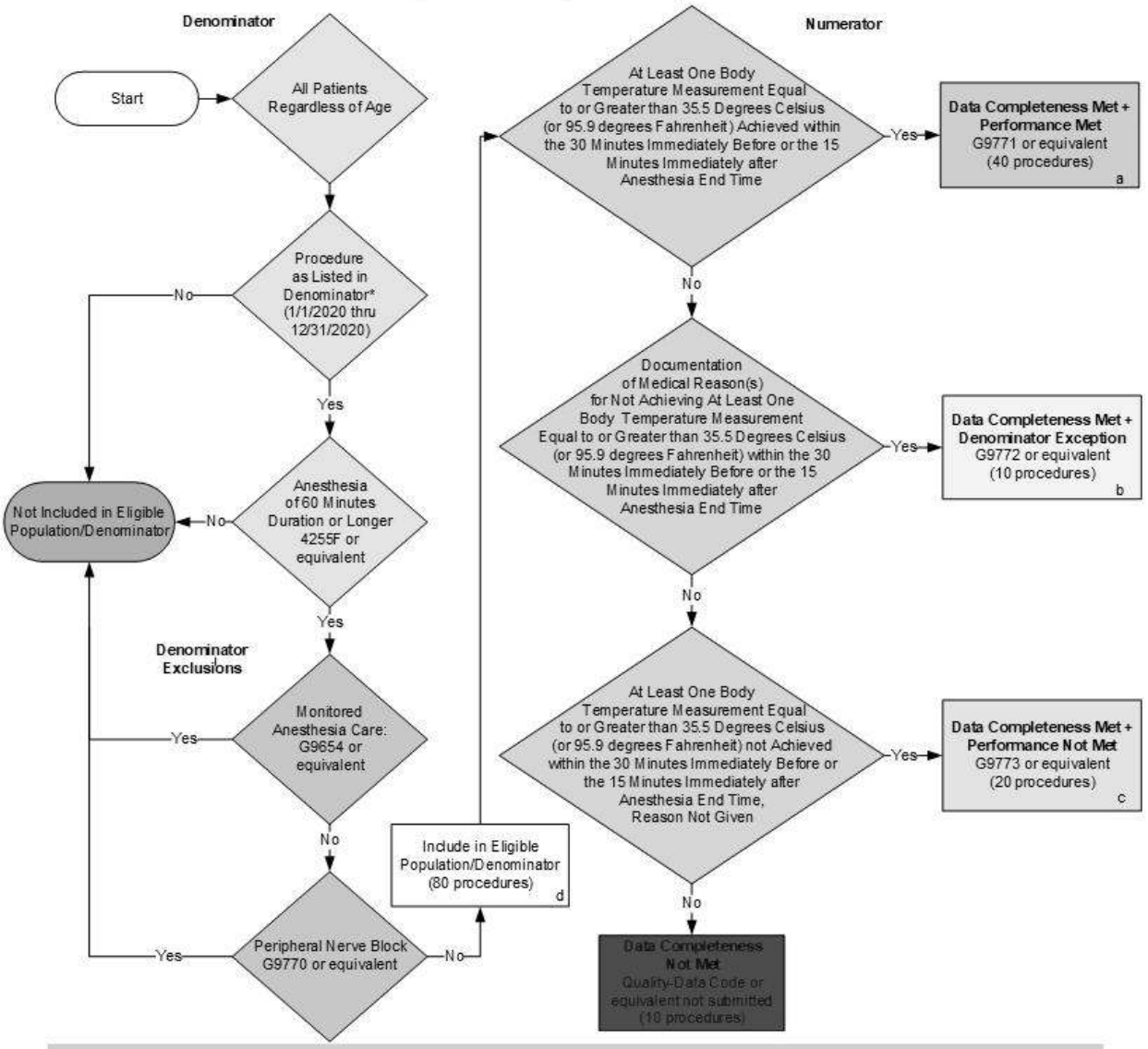
The AMA's and AMA-PCPI's significant past efforts and contributions to the development and updating of the measure is acknowledged. ASA is solely responsible for the review and enhancement ("Maintenance") of the measure as of May 15, 2014.

ASA encourages use of the measure by other health care professionals, where appropriate.

THE MEASURE AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

2020 Clinical Quality Measure Flow for Quality ID #424 NQF #2681: Perioperative Temperature Management

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



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**

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

Performance Rate=

Performance Met (a=40 procedures) = 40 procedures = **66.66%**

Data Completeness Numerator (70 procedures) – Denominator Exception (b=10 procedures) = 60 procedures

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Procedure

v4

2020 Clinical Quality Measure Flow Narrative for Quality ID #424 NQF #2681: Perioperative Temperature Management

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

1. Start with Denominator
2. All Patients Regardless of Age
3. Check Procedure Performed:
    a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in the Denominator equals Yes, proceed to check Anesthesia of 60 Minutes or Longer.
4. Check Anesthesia of 60 Minutes or Longer:
    a. If Anesthesia of 60 Minutes or Longer equals No, do not include in Eligible Population. Stop Processing.
    b. If Anesthesia of 60 Minutes or Longer equals Yes, proceed to check Monitored Anesthesia Care.
5. Check Monitored Anesthesia Care:
    a. If Monitored Anesthesia Care equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Monitored Anesthesia Care equals No, proceed to check Peripheral Nerve Block.
6. Check Peripheral Nerve Block:
    a. If Peripheral Nerve Block equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Peripheral Nerve Block equals No, include in the Eligible Population.
7. 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.
8. Start Numerator
9. Check At Least one Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 degrees Fahrenheit) Was Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time:
    a. If At Least one Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 degrees Fahrenheit) Was Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time 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 40 procedures in the Sample Calculation.

c. If At Least one Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 degrees Fahrenheit) Was Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time equals No, proceed to check Documentation of Medical Reason(s) for Not Achieving At Least One Body Temperature Greater Than Or Equal to 35.5 Degrees Celsius Or 95.9 Degrees Fahrenheit Within the 30 Minutes immediately Before or the 15 Minutes Immediately After Anesthesia End Time.

10. Check Documentation of Medical Reason(s) for Not Achieving At Least One Body Temperature Greater Than Or Equal to 35.5 Degrees Celsius Or 95.9 Degrees Fahrenheit Within the 30 Minutes immediately Before or the 15 Minutes Immediately After Anesthesia End Time:

    a. If Documentation of Medical Reason(s) for Not Achieving At Least One Body Temperature Greater Than Or Equal to 35.5 Degrees Celsius Or 95.9 Degrees Fahrenheit Within the 30 Minutes immediately Before or the 15 Minutes Immediately After Anesthesia End Time equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 procedures in the Sample Calculation.

    c. If Documentation of Medical Reason(s) for Not Achieving At Least One Body Temperature Greater Than Or Equal to 35.5 Degrees Celsius Or 95.9 Degrees Fahrenheit Within the 30 Minutes immediately Before or the 15 Minutes Immediately After Anesthesia End Time equals No, proceed to check At Least One Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 Degrees Fahrenheit) Not Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time, Reason Not Given.

11. Check At Least One Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 Degrees Fahrenheit) Not Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time, Reason Not Given:

    a. If At Least One Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 Degrees Fahrenheit) Not Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time, Reason Not Given 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 At Least One Body Temperature Greater Than or Equal to 35.5 Degrees Celsius (or 95.9 Degrees Fahrenheit) Not Achieved Within the 30 Minutes Immediately Before or the 15 Minutes Immediately After Anesthesia End Time, Reason Not Given equals No, proceed to check 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=

$$\frac{\text{Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{70 \text{ procedures}}{80 \text{ procedures}} = \mathbf{87.50\%}$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures)} - \text{Denominator Exception (b=10 procedures)}} = \frac{40 \text{ procedures}}{60 \text{ procedures}} = \mathbf{66.66\%}$$

Quality ID #430: Prevention of Post-Operative Nausea and Vomiting (PONV) – Combination Therapy – National Quality Strategy Domain: Patient Safety – Meaningful Measure Area: Preventive Care

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of patients, aged 18 years and older, who undergo a procedure under an inhalational general anesthetic, AND who have three or more risk factors for post-operative nausea and vomiting (PONV), who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively

INSTRUCTIONS:
This measure is to be submitted **each time** any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic is performed during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

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, aged 18 years and older, who undergo any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic, AND who have three or more risk factors for PONV

Definition:
PONV Risk Factors – The following are risk factors for PONV:

- Female gender
- History of PONV
- History of motion sickness
- Non-smoker
- Intended administration of opioids for post-operative analgesia. This includes use of opioids given intraoperatively and whose effects extend into the post anesthesia care unit (PACU) or post-operative period, or opioids given in the PACU, or opioids given after discharge from the PACU.

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of service
AND
Patient procedure during the performance period (CPT): 00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520,

00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00566, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01961, 01962, 01963, 01965, 01966

AND

Patient received inhalational anesthetic agent: 4554F

AND

Patient exhibits 3 or more risk factors for post-operative nausea and vomiting: 4556F

NUMERATOR:

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively

Definition:

Anti-emetics Therapy – The recommended first- and second-line classes of pharmacologic anti-emetics for PONV prophylaxis in patients at moderate to severe risk of PONV include (but are not limited to):

- NK-1 Receptor Antagonists
- 5-Hydroxytryptamine (5-HT3) Receptor Antagonists
- Glucocorticoids
- Phenothiazines
- Phenylethylamines
- Butyrophenones
- Antihistamines
- Anticholinergics

NOTE: *The foregoing list of medications/drug names is based on clinical guidelines and other evidence. The specified drugs were selected based on the strength of evidence for their clinical effectiveness. This list of selected drugs may not be current. Physicians and other health care professionals should refer to the FDA's web site page entitled "Drug Safety Communications" for up-to-date drug recall and alert information when prescribing medications.*

Numerator Options:

Performance Met:	Patient received at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively **(G9775)**
OR	
Denominator Exception:	Documentation of medical reason for not receiving at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively (e.g., intolerance or other medical reason) **(G9776)**

OR

Performance Not Met:	Patient did not receive at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively **(G9777)**

RATIONALE:
Postoperative nausea and vomiting (PONV) is an important patient-centered outcome of anesthesia care. PONV is highly dis-satisfying to patients, although rarely life-threatening. A large body of scientific literature has defined risk factors for PONV; demonstrated effective prophylactic regimes based on these risk factors, and demonstrated high variability in this outcome across individual centers and providers. Further, a number of papers have shown that performance can be assessed at the level of individual providers -- the outcome is common enough that sufficient power exists to assess variability and improvement at this level.

CLINICAL RECOMMENDATION STATEMENTS:
Practice Guidelines for Postanesthetic Care; American Society of Anesthesiologists, 2013

Anti-emetic agents should be used for the prevention and treatment of nausea and vomiting when indicated.

Multiple anti-emetic agents may be used for the prevention and treatment of nausea and vomiting when indicated.

Consensus Guidelines for the Management of Postoperative Nausea and Vomiting; Society for Ambulatory Anesthesia (SAMBA), 2014

Administer prophylactic therapy with combination (≥ 2) interventions/multimodal therapy in patients at high risk for PONV.

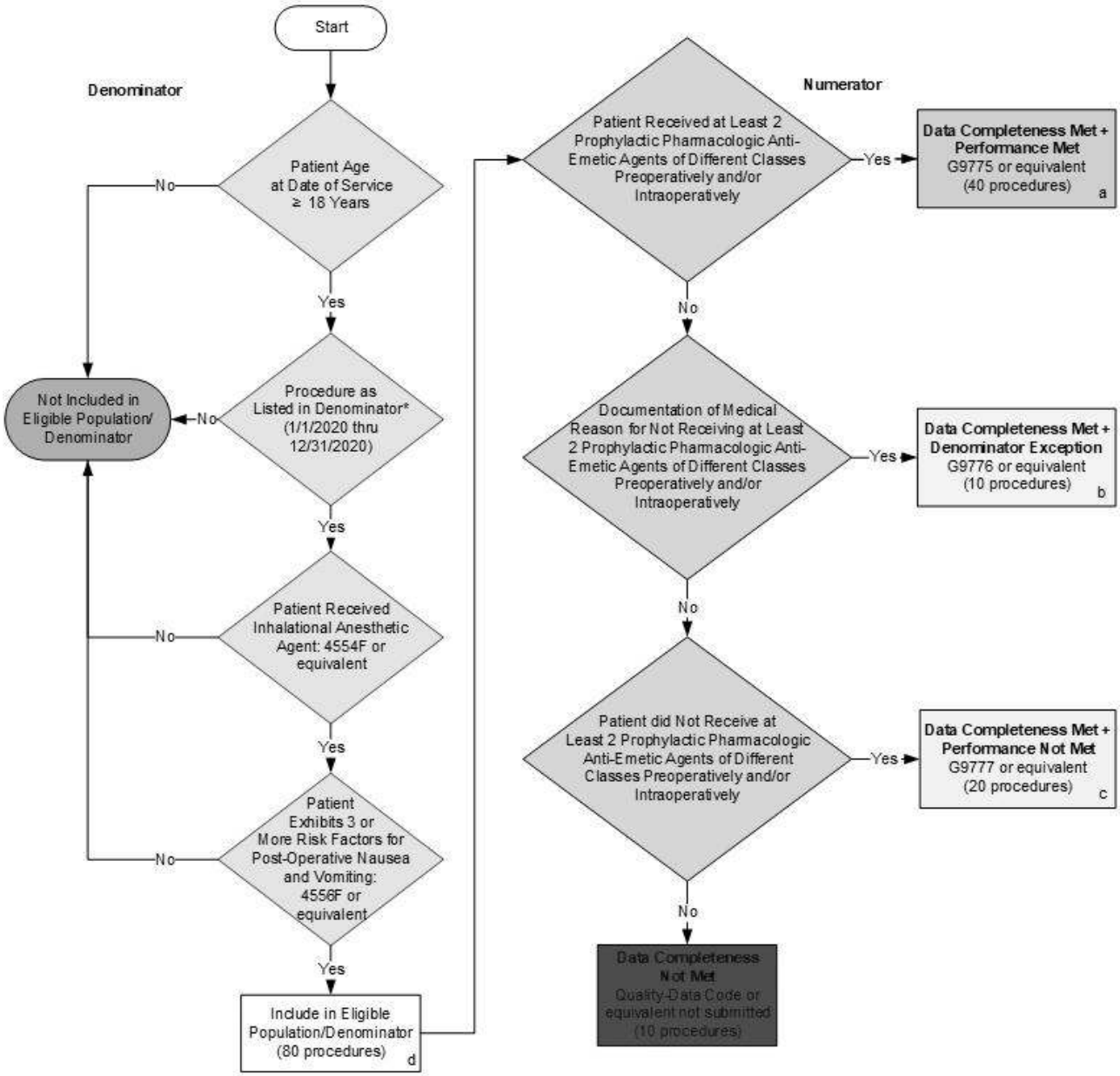
COPYRIGHT:

THE MEASURE AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. ASA, the AMA, the PCPI and its members and former members of the AMA-PCPI disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

2020 Clinical Quality Measure Flow for Quality ID #430: Prevention of Post-Operative Nausea and Vomiting (PONV) - Combination Therapy

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



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**

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

Performance Rate=

Performance Met (a=40 procedures) = 40 procedures = **66.66%**

Data Completeness Numerator (70 procedures) - Denominator Exception (b=10 procedures) = 60 procedures

*See the posted measure specification for specific coding and instructions to submitted this measure.

NOTE: Submission Frequency: Procedure

2020 Clinical Quality Measure Flow Narrative for Quality ID #430: Prevention of Post-Operative Nausea and Vomiting (PONV) - Combination Therapy

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

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Service equals No during the performance period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 years on Date of Service equals Yes during the performance period, proceed to check Procedure Performed.
3. Check Procedure Performed:
    a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in the Denominator equals Yes, proceed to check Patient Received Inhalational Anesthetic Agent.
4. Check Patient Received Inhalational Anesthetic Agent:
    a. If Patient Received Inhalational Anesthetic Agent equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Received Inhalational Anesthetic Agent equals Yes, proceed to check Patient Exhibits 3 or More Risk Factors for Post-Operative Nausea and Vomiting.
5. Check Patient Exhibits 3 or More Risk Factors for Post-Operative Nausea and Vomiting:
    a. If Patient Exhibits 3 or More Risk Factors for Post-Operative Nausea and Vomiting equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Exhibits 3 or More Risk Factors for Post-Operative Nausea and Vomiting 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 Patient Received at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:
    a. If Patient Received at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively 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 Patient Received at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed to check Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and Intraoperatively.

9. Check Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:

   a. If Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 procedures in the Sample Calculation.

   c. If Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed check Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively.

10. Check Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:

    a. If Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively 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 Rate in the Sample Calculation listed at the end of this document. Letter c equals 20 procedures in the Sample Calculation.

    c. If Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed to check Data Completeness Not Met.

11. 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=

$$\frac{\text{Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures)}}{\text{Eligible Population / Denominator (d=80 procedures)}} = \frac{\text{70 procedures}}{\text{80 procedures}} = \mathbf{87.50\%}$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 procedures)}}{\text{Data Completeness Numerator (70 procedures) - Denominator Exception (b=10 procedures) = 60 procedures}} = \frac{\text{40 procedures}}{} = \mathbf{66.66\%}$$

Quality ID #463: Prevention of Post-Operative Vomiting (POV) – Combination Therapy (Pediatrics)
– National Quality Strategy Domain: Patient Safety
– Meaningful Measure Area: Preventive Care

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process-High Priority

DESCRIPTION:
Percentage of patients aged 3 through 17 years, who undergo a procedure under general anesthesia in which an inhalational anesthetic is used for maintenance AND who have two or more risk factors for post-operative vomiting (POV), who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively

INSTRUCTIONS:
This measure is to be submitted **each time** any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic is performed during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

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, aged 3 through 17 years, who undergo a procedure under general anesthesia in which an inhalational anesthetic is used for maintenance AND who have two or more risk factors for POV

Definition:
Risk factors for POV-

- Surgery ≥ 30 minutes
- Age ≥ 3 years
- Strabismus surgery
- History of POV or Post-Operative Nausea and Vomiting (PONV) in patient, parent or sibling

Denominator Criteria (Eligible Cases):
Patients aged 3 through 17 years on date of service
AND
Patient procedure during the performance period (CPT): 00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00562, 00563, 00566, 00567 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632,

00635, 00640, 00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01958, 01960, 01961, 01962, 01963, 01965, 01966, 01991, 01992

AND

Patient received inhalational anesthetic agent: 4554F

AND

Patient exhibits 2 or more risk factors for post-operative vomiting: G9954

AND NOT

DENOMINATOR EXCLUSION:

Cases in which an inhalational anesthetic is used only for induction: G9955

NUMERATOR:

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively

Definition:

Anti-emetics Therapy - The recommended pharmacologic anti-emetics for POV prophylaxis in pediatric patients at risk of POV include (but may not be limited to):

- 5-hydroxytryptamine (5-HT3) receptor antagonists (recommended as the first choice for prophylaxis for POV in children)
- Dexamethasone
- Antihistamines
- Butyrophenones

Definition Note: *The foregoing list of medications/drug names is based on clinical guidelines and other evidence. The specified drugs were selected based on the strength of evidence for their clinical effectiveness. This list of selected drugs may not be current. Physicians and other health care professionals should refer to the FDA's web site page entitled "Drug Safety Communications" for up-to-date drug recall and alert information when prescribing medications.*

Numerator Instructions:

Denominator exceptions should be determined or confirmed at the date of the denominator eligible procedure.

Numerator Options:

Performance Met:	Patient received combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively **(G9956)**

OR

Denominator Exception:	Documentation of medical reason for not receiving

	combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively (e.g., intolerance or other medical reason) **(G9957)**

OR

Performance Not Met:	Patient did not receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively **(G9958)**

RATIONALE:

Postoperative nausea and vomiting (PONV) is an important patient-centered outcome of anesthesia care. PONV is highly dis-satisfying to patients, although rarely life-threatening. A large body of scientific literature has defined risk factors for PONV and has demonstrated effective prophylactic regimes based on these risk factors, and demonstrated high variability in this outcome across individual centers and providers. Between 62-73% of children experience POV when prophylactic anti-emetics are not administered. [i] Beyond the discomfort associated with the condition, POV is a comorbidity which can cause significant postoperative complications, including dehydration and postoperative bleeding. [ii] In several studies, incidence of POV decreased significantly in children receiving combination therapy compared to control groups not receiving combination therapy for POV.[iii,iv,v] Further, a number of papers have shown that performance can be assessed at the level of individual providers -- the outcome is common enough that sufficient power exists to assess variability and improvement at this level. A separate measure is needed for pediatric patients because the risk factors and recommended prophylaxis are different from adults.

CLINICAL RECOMMENDATION STATEMENTS:

Consensus Guidelines for the Management of Postoperative Nausea and Vomiting; Society for Ambulatory Anesthesia (SAMBA), 2013:

Administer prophylactic antiemetic therapy to children at increased risk for POV; as in adults, use of combination therapy is most effective.

All prophylaxis in children at moderate or high risk for POV should include combination therapy using a 5-HT3 antagonist and a second drug. Because the effects of interventions from different drug classes are additive, combining interventions has an additive effect in risk reduction.

COPYRIGHT:

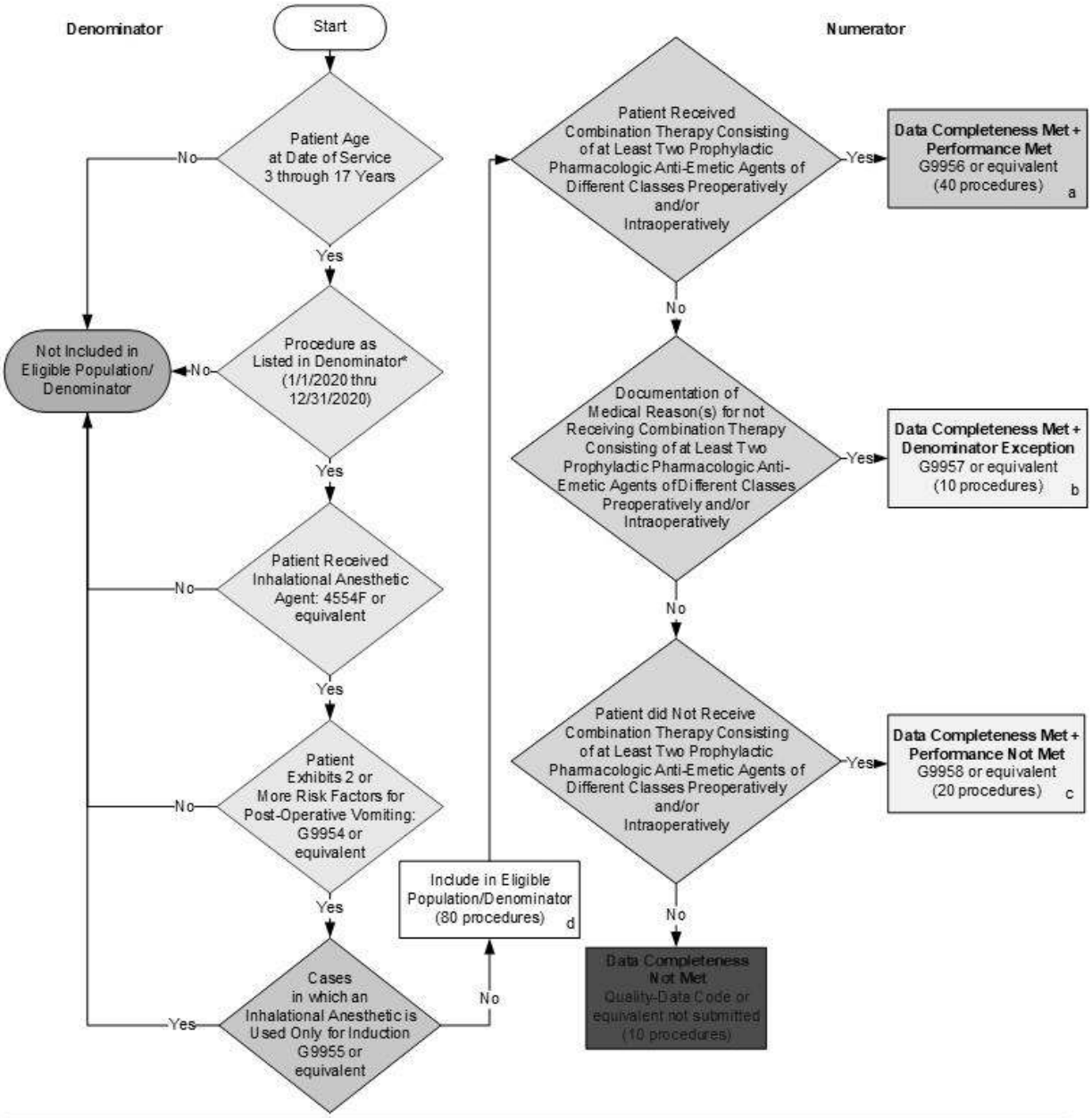
The AMA's and AMA-PCPI's significant past efforts and contributions to the development and updating of the measure is acknowledged. ASA is solely responsible for the review and enhancement ("Maintenance") of the measure as of May 15, 2014.

ASA encourages use of the measure by other health care professionals, where appropriate.

THE MEASURE AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

2020 Clinical Quality Measure Flow for Quality ID #463: Prevention of Post-Operative Vomiting (POV) - Combination Therapy (Pediatrics)

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



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 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) - Denominator Exception (b=10 procedures) = 40 procedures / 60 procedures = **66.66%**

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Procedure

v4

2020 Clinical Quality Measure Flow Narrative for Quality ID #463: Prevention of Post-Operative Vomiting (POV) - Combination Therapy (Pediatrics)

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

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age at Date of Service 3 through 17 Years equals No during the performance period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age at Date of Service 3 through 17 Years equals Yes during the performance period, proceed to check Procedure Performed.
3. Procedure Performed:
    a. If Procedure as Listed in Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Procedure as Listed in Denominator equals Yes, proceed to check Patient Received Inhalation Anesthetic Agent.
4. Check Patient Received Inhalational Anesthetic Agent:
    a. If Patient Received Inhalational Anesthetic Agent equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Received Inhalational Anesthetic Agent equals Yes, proceed to check Patient Exhibits 2 or More Risk Factors for Post-Operative Vomiting.
5. Check Patient Exhibits 2 or More Risk Factors for Post-Operative Vomiting:
    a. If Patient Exhibits 2 or More Risk Factors for Post-Operative Vomiting equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Exhibits 2 or More Risk Factors for Post-Operative Vomiting equals Yes, proceed to check Cases in which an Inhalational Anesthetic is Used Only for Induction.
6. Check Cases in which an Inhalational Anesthetic is Used Only for Induction
    a. If Cases in which an Inhalational Anesthetic is Used Only for Induction equals No, include in Eligible Population.
    b. If Cases in which an Inhalational Anesthetic is Used Only for Induction equals Yes, do not include in Eligible Population.
7. 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.
8. Start Numerator

9. Check Patient Received at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:

    a. If Patient Received Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively 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 Patient Received Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed to check Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and Intraoperatively.

10. Check Documentation of Medical Reason(s) for Not Receiving at Least Two Prophylactic Pharmacologic Anti- Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:

    a. If Documentation of Medical Reason(s) for Not Receiving Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti- Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 procedures in the Sample Calculation.

    c. If Documentation of Medical Reason(s) for Not Receiving Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti- Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed to check Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively.

11. Check Patient did Not Receive at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively:

    a. If Patient did Not Receive Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively 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 in the Sample Calculation listed at the end of this document. Letter c equals 20 procedures in the Sample Calculation.

    c. If Patient did Not Receive Combination Therapy Consisting of at Least Two Prophylactic Pharmacologic Anti-Emetic Agents of Different Classes Preoperatively and/or Intraoperatively equals No, proceed to check 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=

Performance Met (a=40 procedures) + Denominator Exception (b=10 procedures) + Performance Not Met (c=20 procedures) = 70 procedures = **87.50%**
Eligible Population / Denominator (d=80 procedures) = 80 procedures

Performance Rate=

Performance Met (a=40 procedures) = 40 procedures = **66.66%**
Data Completeness Numerator (70 procedures) - Denominator Exception (b=10 procedures) = 60 procedures