Quality ID #463: Prevention of Post-Operative Vomiting (POV) – Combination Therapy (Pediatrics)

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

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:

Reporting Frequency:
This measure is to be submitted each time for denominator eligible cases as defined in the denominator criteria.

Intent and Clinical Applicability:
This measure is intended to reflect the quality of services provided for pediatric patients who undergo any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic. There is no diagnosis associated with this measure. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions as defined by the numerator based on the services provided and the measure-specific denominator coding.

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

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

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

Measure Submission:
The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this collection type for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. The coding provided to identify the measure criteria: Denominator or Numerator, may be an example of coding that could be used to identify patients that meet the intent of this clinical topic. When implementing this measure, please refer to the 'Reference Coding' section to determine if other codes or code languages that meet the intent of the criteria may also be used within the medical record to identify and/or assess patients. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients, 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)/motion sickness in patient
- Family History of POV/PONV
- Post-pubertal female
- Adenotonsillectomy
- Otoplasty
- Anticholinesterases
- Long-acting opioids

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, 01937, 01938, 01939, 01940, 01941, 01942, 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)
- Propofol for induction and maintenance of anesthesia
- Dexamethasone
- Antihistamines
- Butyrophenones

* 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. Beyond the discomfort associated with the condition, POV is a comorbidity which can cause significant postoperative complications, including dehydration and postoperative bleeding. In several studies, incidence of POV decreased significantly in children receiving combination therapy compared to control groups not receiving combination therapy for POV. 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:

Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting; Society for Ambulatory Anesthesia (SAMBA), 2020

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.

REFERENCES:

Gan, T. J., Belani, K. G., Bergese, S., Chung, F., Diemunsch, P., Habib, A. S., Jin, Z., Kovac, A. L., Meyer, T. A., Urman, R. D., Apfel, C. C., Ayad, S., Beagley, L., Candiotti, K., Englesakis, M., Hedrick, T. L., Kranke, P., Lee, S., Lipman, D., Minkowitz, H. S., Morton, J., & Philip, B. K. (2020). Fourth consensus guidelines for the management of postoperative nausea and vomiting. *Anesthesia & Analgesia, 131*(2), 411–448. https://doi.org/10.1213/ANE.0000000000004833 Erratum: *Anesthesia & Analgesia, 131*(5), e241. https://doi.org/10.1213/ANE.0000000000005245

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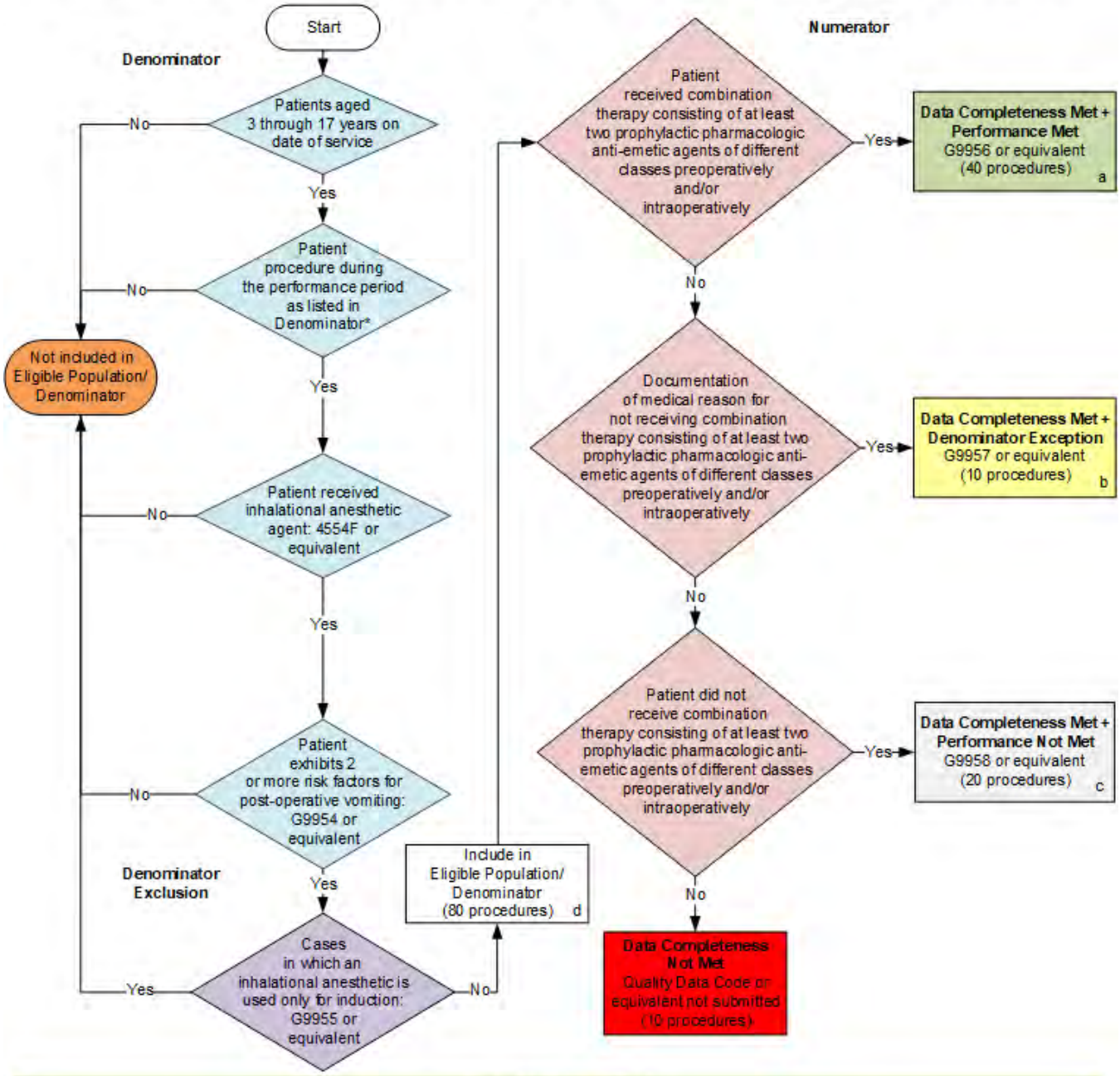
2026 Clinical Quality Measure Flow for Quality ID #463: Prevention of Post-Operative Vomiting (POV) - Combination Therapy (Pediatrics)

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 = **66.67%**

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

NOTE: Submission Frequency: Procedure

2026 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 *Patients aged 3 through 17 years on date of service*:
    a. If *Patients aged 3 through 17 years on date of service* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients aged 3 through 17 years on date of service* equals Yes, proceed to check *Patient procedure during the performance period as listed in Denominator**.
3. Check *Patient procedure during the performance period as listed in Denominator**:
    a. If *Patient procedure during the performance period as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient procedure during the performance period as listed in 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/Denominator*. 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/Denominator*. 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 agent is used only for induction.*
6. Check *Cases in which an inhalational anesthetic agent is used only for induction:*
    a. If *Cases in which an inhalational anesthetic agent is used only for induction* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Cases in which an inhalational anesthetic agent is used only for induction* equals No, include in *Eligible Population/Denominator*.
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 combination therapy consisting of 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*.

    - *Data Completeness Met and Performance Met* letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 procedures in the Sample Calculation.

b. If *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 for not receiving combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively*.

10. Check *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*:

    a. If *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* equals Yes, include in *Data Completeness Met and Denominator Exception*.

        - *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.

    b. If *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* equals No, proceed to check *Patient did not receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively*.

11. Check *Patient did not receive combination therapy consisting of 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*.

        - *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.

    b. 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*:
    - If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 procedures have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations

Data Completeness equals Performance Met (a equals 40 procedures) plus Denominator Exception (b equals 10 procedures) plus Performance Not Met (c equals 20 procedures) divided by Eligible Population/Denominator (d equals 80 procedures). All equals 70 procedures divided by 80 procedures. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 40 procedures) divided by Data Completeness Numerator (70 procedures) minus Denominator Exception (b equals 10 procedures). All equals 40 procedures divided by 60 procedures. All equals 66.67 percent.

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

NOTE: Submission Frequency: Procedure

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.