



**Measure Abbreviation:** PONV 01 (MIPS 430)

*\*PONV 01 is built to the specification outlined by the Merit Based Incentive Program (MIPS) 430: Prevention of Post-Operative Nausea and Vomiting (PONV) – Combination Therapy measure. MIPS measure specifications are available for download at <https://qpp.cms.gov/resources/education>*

**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 antiemetic agents of different classes preoperatively or intraoperatively.

**NQS Domain:** Patient Safety

**Measure Type:** Process

**Scope:** Measured on a per case basis

**Measure Summary:**

The PONV 01 (MIPS 430) measure identifies the percentage of adult patients who undergo a surgical procedure under an inhalational general anesthetic, and who have three or more risk factors for postoperative nausea and vomiting (PONV), who receive combination therapy consisting of at least two prophylactic pharmacologic antiemetic agents of different classes preoperatively or intraoperatively. The purpose of this process of care measure is to reduce the incidence of postoperative nausea and vomiting in adult surgical patients.

**Rationale (Directly quoted from MIPS 430):**

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.<sup>1,2</sup>

**Inclusions:**

- 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**.
  - PONV Risk Factors:
    - 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.
- Procedures (by CPT) included: 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, 00566, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00740, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00810, 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, 01180, 01190, 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, 01682, 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

**Exclusions:**

- Patients <18 years old.
- Procedures (by CPT): 00452, 00561, 00562, 00563, 00567, 00622, 00634, 01916, 01920, 01922, 01953, 01958, 01960, 01968, 01969, 01990, 01991, 01992, 01996, 01999
- Labor Epidurals (CPT: 01967)
- Obstetric Non-Operative Procedure Rooms (Rooms tagged as OB-GYN – Labor and Delivery)
- Obstetric Non-Operative Procedures with procedure text: “Labor Epidural”

**MPOG Concept IDs Required:**

<b>General Inhalational Anesthetic MPOG Concept IDs</b>	
<b>3297</b>	Enflurane Exp %
<b>3298</b>	Enflurane Insp %
<b>3006</b>	Isoflurane actual consumption (ml)
<b>3007</b>	Desflurane actual consumption (ml)
<b>3260</b>	Isoflurane Exp %
<b>3265</b>	Isoflurane Insp%
<b>3280</b>	Desflurane Exp %
<b>3285</b>	Desflurane Insp %
<b>50420</b>	Cardiopulmonary bypass – Isoflurane vaporizer turned on
<b>3008</b>	Sevoflurane actual consumption (ml)
<b>3270</b>	Sevoflurane Exp %
<b>3275</b>	Sevoflurane Insp %
<b>3503</b>	Sevoflurane (mmHg)
<b>3250</b>	Nitrous Insp %
<b>3255</b>	Nitrous Exp %
<b>Antiemetic MPOG Concept IDs (by class)</b>	
<b>Class: 5-Hydroxytryptamine (5-HT3) Receptor Antagonists</b>	
<b>10335</b>	Ondansetron
<b>10164</b>	Dolasetron
<b>10208</b>	Granisetron
<b>10711</b>	Palonosetron
<b>Anticholinergics</b>	
<b>10400</b>	Scopalamine Patch
<b>10399</b>	Scopaloamine

<b>11040</b>	Butylscopolamine
<b>Antiemetic MPOG Concept IDs (by class)- Continued</b>	
<b>Antihistamines</b>	
<b>10257</b>	Dimenhydrinate
<b>10160</b>	Diphenhydramine
<b>Butyrophenones</b>	
<b>10169</b>	Droperidol
<b>10210</b>	Haloperidol
<b>Neurokinin-1 Receptor Agonists</b>	
<b>10035</b>	Aprepitant
<b>10179</b>	Fosaprepitant
<b>Phenothiazines</b>	
<b>10374</b>	Promethazine
<b>10373</b>	Prochlorperazine
<b>Steroids</b>	
<b>10147</b>	Dexamethasone
<b>10296</b>	Methylprednisolone
<b>PONV Medical Reason Exclusion MPOG Concept ID</b>	
<b>50046</b>	Medical Performance Exclusion- PONV
<b>PONV Risk Factor- Smoking Status MPOG Concept IDs:</b>	
<b>70128</b>	History- Social History- Tobacco
<b>71100</b>	History- Social History- Tobacco Details Pack Years
<b>71110</b>	History- Social History- Tobacco details Current vs Past
<b>PONV Risk Factor- History of PONV/Motion Sickness MPOG Concept IDs:</b>	
<b>70225</b>	Assessment and Plan - Comments

<b>70302</b>	Assessment and Plan- Anesthetic Consideration
<b>70338</b>	General- PONV Risk Factors
<b>70339</b>	General- PONV Risk Total Score
<b>70080</b>	General- Previous Anesthetic Problem
<b>70102</b>	Misc- Motion Sickness
<b>PONV Risk Factor- Intended Administration of Opioids for Postop Analgesia MPOG Concept IDs:</b>	
<b>70234</b>	Assessment and Plan – Postop Pain Management
<b>10008</b>	Bupivacaine w/ Hydromorphone 0.1% / Unspecified
<b>10020</b>	Alfentanil
<b>10077</b>	Bupivacaine w/ Fentanyl 0.0625% / 3 mcg/mL
<b>10079</b>	Bupivacaine w/ Fentanyl 0.08% / 2 mcg/mL
<b>10080</b>	Bupivacaine w/ Fentanyl 0.125% / 2 mcg/mL
<b>10081</b>	Bupivacaine w/ Fentanyl 0.125% / 3 mcg/mL
<b>10082</b>	Bupivacaine w/ Hydromorphone 0.0625% / 5 mcg/mL
<b>10083</b>	Bupivacaine w/ Hydromorphone 0.0625% / 10 mcg/mL
<b>10103</b>	Bupivacaine w/ Fentanyl 0.125% / 5 mcg/mL
<b>10186</b>	Fentanyl
<b>10187</b>	Fentanyl / Midazolam 40mcg/mL / 200mcg/mL
<b>10219</b>	Hydromorphone
<b>10258</b>	Bupivacaine w/ Hydromorphone 0.05% / 3 mcg/mL
<b>10279</b>	Meperidine
<b>10290</b>	Methadone
<b>10306</b>	Morphine
<b>10341</b>	Oxycodone
<b>10408</b>	Bupivacaine w/ Fentanyl 0.0625% / 5 mcg/mL

<b>10414</b>	Sufentanil
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<b>PONV Risk Factor- Intended Administration of Opioids for Postop Analgesia MPOG Concept IDs:</b>	
<b>10439</b>	Bupivacaine w/ Sufentanil w/ Epinephrine 100 mg / 100 mcg / 0.42 mg
<b>10475</b>	Bupivacaine w/ Hydromorphone 0.125% / 5 mcg/mL
<b>10476</b>	Bupivacaine w/ Hydromorphone 0.125% / 10 mcg/mL
<b>10478</b>	Lidocaine w/ Hydromorphone 2% / 10 mcg/mL
<b>10479</b>	Lidocaine w/ Fentanyl w/ Epinephrine w/ Bicarbonate 2% / 5 mcg/mL / 1:200,000
<b>10481</b>	Oxycodone / Acetaminophen 5 mg / 325 mg
<b>10482</b>	Hydrocodone / Acetaminophen 5 mg / 325 mg
<b>10483</b>	Hydrocodone / Acetaminophen 7.5 mg / 500 mg
<b>10486</b>	Bupivacaine w/ Fentanyl 0.5% / 3 mcg/mL
<b>10488</b>	Bupivacaine w/ Fentanyl 0.5% / 10 mcg/mL
<b>10518</b>	Bupivacaine w/ Hydromorphone 0.5% / 10 mcg/mL
<b>10519</b>	Bupivacaine w/ Fentanyl 0.05% / 3 mcg/mL
<b>10522</b>	Bupivacaine w/ Morphine 0.75% / 0.2 mg
<b>10534</b>	Bupivacaine w/ Fentanyl 0.0625% / 2 mcg/mL
<b>10536</b>	Bupivacaine w/ Fentanyl 0.0625% / 10 mcg/mL
<b>10554</b>	Bupivacaine w/ Fentanyl 0.1% / 2 mcg/mL
<b>10583</b>	Bupivacaine w/ Fentanyl 0.0625% / 4 mcg/mL
<b>10584</b>	Bupivacaine w/ Fentanyl 0.0625% / 10 mcg/mL
<b>10585</b>	Bupivacaine w/ Fentanyl 0.125% / 4 mcg/mL
<b>10597</b>	Propofol w/ Alfentanil 10 mg/mL + 50 mcg/mL
<b>10603</b>	Bupivacaine w/ Hydromorphone 0.05% / 10 mcg/mL
<b>10611</b>	Bupivacaine w/ Fentanyl w/ Epinephrine 37.5 mg / 750 mcg / 0.125 mg

<b>10620</b>	Bupivacaine w/ Fentanyl 0.125% / 10 mcg/mL
<b>10633</b>	Ropivacaine w/ Fentanyl 0.125% 2 mcg/mL
<b>PONV Risk Factor- Intended Administration of Opioids for Postop Analgesia MPOG Concept IDs:</b>	
<b>10642</b>	Bupivacaine w/ Fentanyl 0.01% / 4 mcg/mL
<b>10643</b>	Bupivacaine w/ Fentanyl 0.25% / 4 mcg/mL
<b>10644</b>	Bupivacaine w/ Fentanyl 0.25% / 2 mcg/mL
<b>10646</b>	Bupivacaine w/ Hydromorphone 0.125% / 20 mcg/mL
<b>10648</b>	Bupivacaine w/ Hydromorphone 0.1% / 20 mcg/mL
<b>10654</b>	Bupivacaine w/ Fentanyl 0.167% / 16.67 mcg/mL
<b>10669</b>	Bupivacaine w/ Fentanyl 0.25% / 10 mcg/mL
<b>11120</b>	Bupivacaine w/ Fentanyl 0.05% / 5 mcg/mL
<b>11130</b>	Bupivacaine w/ Fentanyl 0.25% / 2.5 mcg/mL
<b>11140</b>	Bupivacaine w/ Fentanyl 0.05% / 2 mcg/mL

**Data Diagnostics Affected:**

- Percentage of Cases with Professional Fee Procedure Codes
- Percentage of Cases with Antiemetic Medications
- Percentage of Cases in which the Patient has a known Gender
- Percentage of Intraoperative Notes with a Meaningful Note Mapping
- Percentage of Preoperative Notes with a Meaningful Type Mapping

**Collations Used:**

- History of PONV
- History of Motion Sickness
- Tobacco Smoking Classification

**Other Measure Build Details:**

- If smoking status is not documented, patient is assumed to be a non-smoker and therefore is assigned at least one risk factor.
- Nitrous oxide values less than 15% are considered artifact and will result in case exclusion if the patient did not receive any other inhalational general anesthetics or additional nitrous oxide greater than 15%.
- Sevoflurane values less than 50% are considered artifact and will result in case exclusion if the patient did not receive any other inhalational general anesthetics or additional Sevoflurane greater than 50%
- This measure requires CPT codes to be transferred to the MPOG database for cases to be included. Those sites participating with this measure must have current pro fee procedure data in the MPOG Central database- refer to the flow diagram on page 10 of this specification for more details.

**Success:** Patient receives combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively

Anti-emetic 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-HT<sub>3</sub>) 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.

**Threshold:** 90%.

**Responsible Provider:** Provider(s) signed in at Induction End.

**Method for determining Responsible Provider:**

1. Provider signed in at Anesthesia Induction End. If not available then,
2. Provider signed in at Anesthesia Induction Begin. If not available then,
3. Provider signed in at Procedure Start. If not available then,
4. Provider signed in at Patient in Room. If not available then,
5. Provider signed in Anesthesia Start.



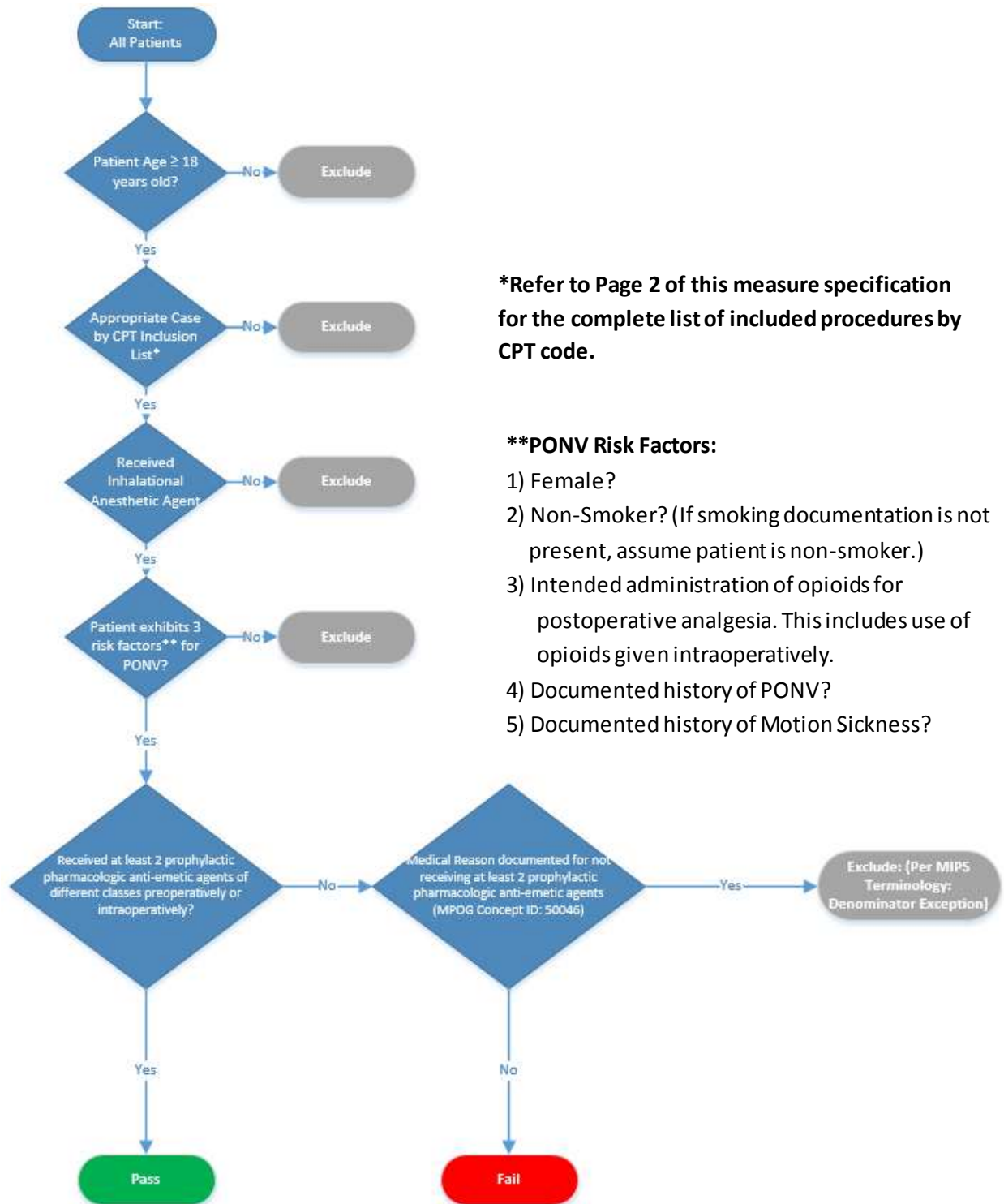
**Risk Adjustment (for outcome measures):**

*Not applicable.*

**References:**

1. Gan TJ, Diemunsch P, Habib AS, et al. Consensus guidelines for the management of postoperative nausea and vomiting. *Anesthesia and analgesia*. 2014;118(1):85-113.
2. White PF, Kehlet H, Neal JM, Schricker T, Carr DB, Carli F. The role of the anesthesiologist in fast-track surgery: from multimodal analgesia to perioperative medical care. *Anesthesia and analgesia*. 2007;104(6):1380-1396, table of contents.

**PONV 01 Flow Diagram**



**\*Refer to Page 2 of this measure specification for the complete list of included procedures by CPT code.**

**\*\*PONV Risk Factors:**

- 1) Female?
- 2) Non-Smoker? (If smoking documentation is not present, assume patient is non-smoker.)
- 3) Intended administration of opioids for postoperative analgesia. This includes use of opioids given intraoperatively.
- 4) Documented history of PONV?
- 5) Documented history of Motion Sickness?