



# AQI QCDR Measure Specification

Year 2014

Anesthesia Quality Institute

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## Non-PQRS QCDR Measures

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## Measure Title

### ASA #6: Post-Anesthetic Transfer of Care: Use of Checklist or Protocol for Direct Transfer of Care from Procedure Room to Intensive Care Unit (ICU)

## Measure Description

Percentage of patients, regardless of age, who receive an anesthetic and are admitted to an Intensive Care Unit (ICU) directly from the anesthetizing location, that have a documented use of a checklist or protocol for the transfer of care from the responsible anesthesia practitioner to the responsible ICU practitioner

## NQS Domain

Communication and Care Coordination

## Numerator

Patients who have a documented use of a checklist or protocol for the transfer of care from the responsible anesthesia practitioner to the responsible ICU practitioner.

Definition: The key handoff elements that must be included in the transfer of care protocol or checklist include:

1. Identification of patient
2. Identification of responsible practitioner (primary service)
3. Discussion of pertinent medical history
4. Discussion of the surgical/procedure course (procedure, reason for surgery, procedure performed)
5. Intraoperative anesthetic management and issue/concerns to include things such as airway, hemodynamic, narcotic, sedation level and paralytic management and intravenous fluids/blood products and urine output during the procedure
6. Expectations/Plans for the early post-procedure period to include things such as the anticipated course (anticipatory guidance), complications, need for laboratory or ECG and medication administration
7. Opportunity for questions and acknowledgement of understanding of report from the receiving ICU team

## Numeration Quality-Data Coding Options for Reporting Satisfactorily:

All elements above are included in the transfer of care protocol or checklist and documented.

The following Cat II CPT codes are to be used:

- 0581F Patient transferred directly from anesthetizing location to critical care unit
- 0582F Patient not transferred directly from anesthetizing location to critical care unit
- 0583F Transfer of care checklist used
- 0584F Transfer of care checklist not used

## Denominator

All patients, regardless of age, who receive an anesthetic and are admitted to an ICU directly from the anesthetizing location,

## Denominator Criteria (Eligible Cases):

Patient of any age

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01990, 01991, 01992, 01999

**Denominator Exclusions / Exceptions**

None

**Rationale**

Hand-offs of care are a vulnerable moment for patient safety, but required in any 24/7 healthcare system. Anesthesia providers routinely transfer critically ill patients from the OR to the ICU, and are responsible for transmitting knowledge about patient history, a summary of intraoperative events, and future plans for hemodynamic and pain management to the ICU team. Evidence demonstrates that this process can be facilitated by use of a checklist that motivates completion of all key components of the transfer, and this is an emerging best practice in anesthesia care.

**Measure Type (Process/Outcome)**

Process

**Steward**

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

**Data Source**

Claims and Registry

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measure are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

## Measure Title

### ASA #7: Prevention of Post-Operative Nausea and Vomiting (PONV) - Combination Therapy (Adults)

#### Measure Description

Percentage of patients, aged 18 years and older, who receive an inhalational general anesthetic, and 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 or intraoperative

#### NQS Domain

Person and Caregiver-Centered Experience and Outcomes

#### Numerator

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic antiemetic agents of different classes preoperatively or intraoperatively.

Definition: 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):

- 5-hydroxytryptamine (5-HT<sub>3</sub>) receptor antagonists (eg, ondansetron, dolasetron, granisetron and tropisetron)
- steroids (eg, dexamethasone)
- phenothiazines (eg, promethazine, prochlorperazine)
- phenylethylamine (eg, ephedrine)
- butyrophenones (eg, droperidol, haloperidol)
- antihistamine (eg, dimenhydrinate, diphenhydramine)
- anticholinergic (eg, transdermal scopolamine)

The following Cat II CPT codes should be reported:

- 4554F Patient received inhalation anesthetic agent
- 4555F Patient did not receive inhalational anesthetic agent
- 4556F Patient exhibits 3 or more risk factors for post-operative nausea and vomiting
- 4557F Patient does not exhibit 3 or more risk factors for post-operative nausea and vomiting
- 4558F Patient received at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and intraoperatively

#### Denominator

All patients aged 18 years and older who receive an inhalational general anesthetic and have three or more risk factors for PONV

Definition:

Risk factors for PONV are:

- (1) history of PONV or a history of motion sickness,
- (2) non-smoker, and
- (3) 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):**

Patient  $\geq 18$

And

Patient has 3 or more risk factors for PONV

And

Patient received an inhalation general anesthesia

**Denominator Exclusions / Exceptions**

Documentation of medical reason(s) for not administering pharmacologic prophylaxis (eg, intolerance or other)

**Rationale**

Postoperative nausea and vomiting (PONV) is an important patient-centered outcome of anesthesia care. PONV is highly dissatisfying 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.

**Measure Type (Process/Outcome)**

Process

**Steward**

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

**Data Source**

Claims and Registry

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measure are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

## Measure Title

### ASA #8: Prevention of Post-Operative Vomiting (POV) - Combination Therapy (Pediatrics)

#### Measure Description

Percentage of patients, aged 3 through 17 years of age, who receive a general anesthetic in which an inhalation 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

#### NQS Domain

Person and Caregiver-Centered Experience and Outcomes

#### Numerator

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes.

Definition: 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):

- 5-hydroxytryptamine (5-HT<sub>3</sub>) receptor antagonists (eg, ondansetron, dolasetron, granisetron and tropisetron)
- steroids (eg, dexamethasone)
- phenothiazines (eg, promethazine, prochlorperazine)
- phenylethylamine (eg, ephedrine)
- butyrophenones (eg, droperidol, haloperidol)
- antihistamine (eg, dimenhydrinate, diphenhydramine)
- anticholinergic (eg, transdermal scopolamine)

The following Cat II CPT codes should be reported:

4554F Patient received inhalation anesthetic agent

4555F Patient did not receive inhalational anesthetic agent

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

4557F Patient does not exhibit 3 or more risk factors for post-operative nausea and vomiting

4558F Patient received at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and intraoperatively

#### Denominator

All patients aged 3 through 17 years of age, who are having a general anesthetic in which an inhalational anesthetic is used for maintenance AND who have two or more risk factors for POV.

Definition: Risk factors for POV are:

- Surgery  $\geq$  30 minutes
- Age  $\geq$  3 years
- Strabismus surgery
- History of POV or PONV in parent or sibling



**Denominator Criteria (Eligible Cases):**

Patient Age < 18

And

Patient Age > 2

And

Anesthesia duration > 30 minutes

**Denominator Exclusions / Exceptions**

Denominator Exclusion: Cases in which an inhalational anesthetic is used only for induction.

Denominator Exception: Documentation of medical reason(s) for not administering pharmacologic prophylaxis (eg, intolerance or other)

**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. A separate measure is needed for pediatric patients because the risk factors and recommended prophylaxis are different from adults.

**Measure Type (Process/Outcome)**

Process

**Steward**

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

**Data Source**

Claims and Registry

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

## Measure Title

### ASA #9: Anesthesiology: Post-Anesthetic Transfer of Care Measure: Procedure Room to a Post Anesthesia Care Unit

## Measure Description

Percentage of patients who are under the care of an anesthesia practitioner and are admitted to a PACU in which a post-anesthetic formal transfer of care protocol or checklist which includes the key transfer of care elements is utilized.

## NQS Domain

Communication and Care Coordination

## Numerator

All age patients who have been cared for by an anesthesia practitioner and are transferred directly from the procedure room to post-anesthesia care unit (PACU) for post-procedure care for whom a checklist or protocol which includes the key transfer of care elements is utilized.

- All age patients under the care of an anesthesia practitioner AND
- Are transferred to another practitioner in a PACU following completion of the anesthetic care AND a transfer of care protocol or handoff tool/checklist that includes the required key handoff elements is used. The key handoff elements that must be included in the transition of care include:
  1. Identification of patient
  2. Identification of responsible practitioner (PACU nurse or advanced practitioner)
  3. Discussion of pertinent medical history
  4. Discussion of the surgical/procedure course (procedure, reason for surgery, procedure performed)
  5. Intraoperative anesthetic management and issues/concerns.
  6. Expectations/Plans for the early post-procedure period.
  7. Opportunity for questions and acknowledgement of understanding of report from the receiving PACU team

## Numerator reporting

All elements above are included in the transfer of care protocol or checklist and documented.

The following codes can be included in the ASA\_08 measure field:

- A Patient transferred directly from procedure room to PACU
- B Patient not transferred directly from procedure room to PACU
- C Transfer of care checklist used
- D Transfer of care checklist not used

Note: Multiple codes can/should be used.

## Denominator

All age patients who are cared for by an anesthesia practitioner and are transferred directly from the procedure room to the PACU upon completion of the anesthetic.

- All age patients under the care of an anesthesia practitioner AND
- who are transferred directly to the PACU at the completion of the anesthetic

- Note: This measure does not include transfer of care during an anesthetic or to the ICU.

## Denominator Criteria (Eligible Cases):

Patient of any age

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01990, 01991, 01992, 01999

## Denominator Exclusions / Exceptions

All age patients who have been cared for by an anesthesia practitioner who is not admitted from the operating room directly to a PACU.

## Rationale

Hand-offs of care are a vulnerable moment for patient safety, but required in any 24/7 healthcare system.

Anesthesia providers routinely transfer patients from the OR to the PACU, and are responsible for transmitting knowledge about patient history, a summary of intraoperative events, and future plans for hemodynamic and pain management to the new care team. Evidence demonstrates that this process can be facilitated by use of a checklist that motivates completion of all key components of the transfer, and this is an emerging best practice in anesthesia care.

**Measure Type (Process/Outcome)**

Process

**Steward**

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

**Data Source**

Claims and Registry

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**Measure Title:****ASA #10: Composite Anesthesia Safety****Measure Description:**

Completion of a scheduled surgical procedure without the occurrence of a serious adverse event.

The procedure is considered complete when the patient leaves the operating room or arrives in the PACU/ICU.

The list of serious adverse events is defined here: : <http://www.aqihq.org/CPOM-registry-data-set.pdf>

**NQS Domain:**

Effective Clinical Care

**Numerator:**

All patients who have the planned procedure, and who do not have a major complication of anesthesia

The following codes can be included in the ASA\_10 measure field:

- A Patient **did not** experience serious adverse event at completion of scheduled surgical procedure
- B Patient **did** experience serious adverse event at completion of scheduled surgical procedure
- C Patient did not have scheduled surgical procedure

**Denominator:**

All scheduled procedures receiving anesthesia

**Denominator Criteria (Eligible Cases):**

Patient of any age

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01990, 01991, 01992, 01999

**Denominator Exclusions / Exceptions:**

None

**Rationale:**

Serious adverse events are rare in anesthesia care, but can be assessed for performance improvement purposes as a composite of mortality, major organ system injury, and unintended events (e.g. anaphylaxis, cardiac arrest) that carry a high risk. Completion of a scheduled surgery or procedure WITHOUT complication is the fundamental goal of both patients and anesthesia providers, suggesting that this metric is at the core of assessment for the specialties involved.

**Measure Type (Process/Outcome):**

Outcome

**Steward:**

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

**Data Source:**

Claims, Registry, and HER

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measure are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**Measure Title:**

**ASA #11: Immediate Perioperative Cardiac Arrest Rate**

**Measure Description:**

For all non-emergent surgical cases, the numbers of patients who experience a cardiac arrest prior to PACU discharge.

Cardiac arrest is broadly defined as the cessation of cardiac mechanical activity as confirmed by the absence of signs of circulation. Includes use of cardiac compressions and/or defibrillation and occurs prior to PACU discharge after induction of anesthesia. Any episode of cardiovascular instability requiring closed chest compressions.

**NQS Domain:**

Patient Safety

**Numerator**

Number of patients experiencing an unanticipated cardiac arrest

The following codes can be included in the ASA\_11 measure field:

- A Patient **did** experience unanticipated cardiac arrest
- B Patient **did not** experience unanticipated cardiac arrest
- C Patient did not have surgical case
- D Patient had planned cardiac arrest: deep hypothermia, electrophysiology cases, cardiac bypass cases

**Denominator Criteria (Eligible Cases):**

Patient of any age

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01990, 01991, 01992, 01999

**Denominator Exclusions / Exceptions:**

Cases with planned cardiac arrest: deep hypothermia, electrophysiology cases, cardiac bypass cases  
Emergent cases are excluded. These are identified by ASA Physical Status indicating case is emergent by using 'E' designation.

**Rationale:**

Cardiac arrest in the perioperative period is an unintended serious adverse event, associated with immediate mortality of about 50%. Arrest can occur as the result of sudden physiologic disruption due to surgery or medications (e.g. anaphylaxis, air embolus) or as the cumulative result of progressive deterioration (e.g. bleeding, heart failure). Prevention of cardiac arrest is a core goal of anesthesia providers, with high face validity as a discriminator of the quality of anesthesia care.

**Measure Type (Process/Outcome):**

Intermediate Outcome

**Steward:**

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

**Data Source:**

Claims and Registry

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for these measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.



**Measure Title:**

**ASA #12: Immediate Perioperative Mortality Rate**

**Measure Description:**

For all non-emergent surgical cases, the mortality prior to PACU discharges.

**NQS Domain:**

Patient Safety

**Numerator:**

The Number of patients who die in OR / PACU prior to discharge

The following codes can be included in the ASA\_12 measure field:

- A Patient experienced mortality
- C Patient did not have surgical case
- D Patient presented for organ harvesting

**Denominator:**

All scheduled procedures receiving anesthesia

**Denominator Criteria (Eligible Cases):**

Patient of any age

And

ASA Physical Status indicate case was non-emergent ('E' is not present )

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01991, 01992, 01999

**Denominator Exclusions / Exceptions:**

Organ Donors as designated by ASA Physical Status of 6

**Rationale:**

Mortality is the outcome of ultimate interest to patients and providers. Albeit very rare in the perioperative period, death in the OR or PACU is a sentinel event in any anesthesia department, as the majority of such occurrences can be traced directly to anesthetic management issues. Capturing this data in a uniform fashion will allow assessment of variability across practices and facilities, as well as identification of the rare outlier at the individual physician level.

**Measure Type (Process/Outcome):**

Outcome

**Steward:**

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

**Data Source:**

Claims, Registry, and EHR

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**Measure Title:****ASA #13: PACU Re-intubation Rate****Measure Description:**

For all patients with a planned extubation following general anesthesia, the number requiring re-intubation prior to PACU discharge.

**NQS Domain:**

Patient Safety

**Numerator:**

The number of patients re-intubated with an ETT or new surgical airway. Any such patient who was extubated and then re-intubated before leaving the PACU

The following codes can be included in the ASA\_13 measure field:

- A Patient was re-intubated prior to PACU discharge
- B Patient was not re-intubated prior to PACU discharge
- C Patient was not previously intubated

**Denominator:**

All patients receiving GETA who are extubated prior to PACU discharge. Any patient not previously intubated who was intubated for the surgical procedure.

**Denominator Exclusions / Exceptions:**

Exclude patients transferred directly to the ICU from the OR.

**Rationale:**

Early reintubation of surgical patients is strongly associated with subsequent serious adverse outcomes; prolonged ICU and hospital stay, and increased costs of care. Assessment of this metric under a unified definition will be an important tool for benchmarking the performance of surgical facilities, anesthesia departments, and individual practitioners.

**Measure Type (Process/Outcome):**

Intermediate Outcome

**Steward:**

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

**Data Source:**

Claims, Registry, and HER

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical

reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**Measure Title:**

**ASA #14: Short-term Pain Management**

**Measure Description:**

The number of patients admitted to the PACU following an anesthetic with a maximum pain score >7/10.

**NQS Domain:**

Person and Caregiver-Centered Experience and Outcomes

**Numerator:**

The number of lucid patients with an initial pain score 7/10 or higher

The following codes can be included in the ASA\_14 measure field:

- A Patient experienced pain > 7 out of 10
- B Patient did not experience pain > 7 out of 10
- C Patient was not lucid
- D Patient was unable to communicate clearly

**Denominator:**

All patients age 10 and greater admitted to PACU who can be assessed for pain

**Denominator Criteria (Eligible Cases):**

Patient of any age >= 10

And

Patient can be assessed for pain

And

Patient encounter during the reporting period (CPT): Anesthesia codes which are commonly indicated for associated surgical procedure(s):

00100,00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00561, 00562, 00563, 00566, 00567, 00580, 00600, 00620, 00622, 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, 00834, 00836, 00840, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 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, 01782, 01810, 01820, 01829, 01830,

01832, 01840, 01842, 01844, 01850, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01935, 01936, 01951, 01952, 01958, 01961, 01963, 01965, 01966, 01967, 01990, 01991, 01992, 01999

**Denominator Exclusions / Exceptions:**

Chronic pain patients taking narcotics prior to surgery, patients with major psychiatric disorders, patients who do not speak English or present a language barrier.

**Rationale:**

Alleviation of pain is a core responsibility of the anesthesia provider, and adequate postoperative pain control is an important component of patient satisfaction with anesthesia and surgery. A large body of literature exists to support evidence-based practice in this area. Significant variability in outcomes exists at the practice, facility and individual provider level. Capture of this metric under a common definition will greatly enhance anesthesia quality management and lead directly to improvements in patient outcome.

**Measure Type (Process/Outcome):**

Intermediate Outcome

**Steward:**

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

**Data Source:**

Claims, Registry, and EMR

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**Measure Title:****ASA #15: Composite Procedural Safety for Central Line Placement****Measure Description:**

The number of patients who experience pneumothorax or arterial injury following central line placement.

**NQS Domain:**

Patient Safety

**Numerator:**

The number of patients with documented arterial injury (from the medical record or PSI code) or pneumothorax requiring thoracostomy placement (CPT 32035, 32036, 32551)

The following codes can be included in the ASA\_15 measure field:

- A Patient experienced injury
- B Patient did not experience injury
- C Unable to determine

**Denominator:**

All patients receiving central line placement for a planned surgical procedure

**Denominator Exclusions / Exceptions:**

Emergencies

**Rationale:**

Placement of central venous catheters is common for anesthesia providers, but may be associated with serious adverse events. Arterial injury and pneumothorax each require additional treatment that adds to the cost and discomfort of care. Recent scientific literature has documented that the risk for these complications can be reduced through evidence-based practice, including the use of ultrasound localization of the central vein. This measure will allow for documentation of variability in occurrence of this outcome, and will empower quality improvement efforts.

**Measure Type (Process/Outcome):**

Intermediate Outcome

**Steward:**

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

**Data Source:**

Claims, Registry, and EHR

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

### **Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.



**Measure Title:****ASA #16: Composite Patient Experience****Measure Description:**

Patient was surveyed using regarding anesthesia experience using an approved tool. This can be CAHPS-S or another survey tool which meets the recommendations of the ASA CPOM paper on patient satisfaction. The paper is available here: [http://www.aqihq.org/files/ASA\\_Membership\\_Patient\\_Satisfaction.pdf](http://www.aqihq.org/files/ASA_Membership_Patient_Satisfaction.pdf)

**NQS Domain:**

Person and Caregiver-Centered Experience and Outcomes

**Numerator:**

The following codes can be included in the ASA\_16 measure field:

- A Patient was surveyed
- B Patient was not surveyed
- D Patient was unable to be surveyed

**Denominator:**

Patient of any age  $\geq 18$

And

OR Case

**Denominator Exclusions / Exceptions:**

Non- verbal patients, patients with major psychiatric disorders, patients who cannot be surveyed due to language barriers.

**Rationale:**

Patient-centered outcomes are important discriminators of the quality of anesthesia practice, and every anesthesia department and provider should have access to relevant S-CAHPS data collected by the facility, as a means of guiding quality improvement initiatives.

**Measure Type (Process/Outcome):**

Composite

**Steward:**

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

**Data Source:**

Other – CAHPS

Other – approved survey tool with an anesthesia component

**Measure Reporting via Admin/Claims Data**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting via claims, submit the listed CPT codes, and the appropriate CPT Category II code or the appropriate CPT Category II code with the modifier. The modifiers allowed for this measures are: 1P - medical reasons, 8P - reason not otherwise specified. All measure-specific coding should be reported on the claims representing the eligible encounter as the denominator codes.

**Measure Reporting via Registry**

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.