2023 MACRA Ready™ *for **Anesthesiology***

(v03/04/2023)

Please note: This guide was prepared for informational purposes only and isn't intended to grant rights or impose obligations. The information provided is only intended to be a general summary. It isn't intended to take the place of the written law, including the regulations. We encourage readers to review the specific statutes, regulations, and other interpretive materials for a full and accurate statement of their contents.

This manual covers "**Traditional MIPS"** for the Quality Payment Program **(https://qpp.cms.gov).**

GRAPHIUM HEALTH™

Table of Contents

High Weight Activities

Medium Weight Activities

I. Quality Payment Program (qpp.cms.gov)

Overview

The Merit-based Incentive Payment System (MIPS) is one way to participate in the Quality Payment Program (QPP). The program describes how CMS reimburses MIPS eligible providers (EPs) for Part B covered professional services and rewards them for improving the quality of patient care and outcomes.

Under MIPS, CMS evaluates your performance across multiple performance categories that lead to improved quality and value in our healthcare system.

Key points:

1. Payment Adjustment: Each Eligible Provider (EP) - defined as any unique NPI + TIN combination - will ultimately be given a Payment Adjustment on Medicare claims ranging from a max penalty of -9% to a theoretical max bonus of +9% (but much more likely max is lower). The final payment adjustment is a function of the NPI's **Composite Performance Score (CPS)**.

2. Composite Performance Score: The EP's Composite Performance Score ranges from 0 to 100 with 0 resulting in the max penalty and a CPS of 100 resulting in the max bonus. The CPS is determined by a complex formula consisting of weighted averages from **Four Performance Categories**.

3. Four Performance Categories: Specific weighted averages of the following four performance categories produce your final Composite Performance Score (0-100): **Quality**, **Promoting Interoperability**, **Improvement Activities**, and **Cost**.

CMS designed MIPS to update and consolidate previous programs, including: Medicare Electronic Health Records (EHR) Incentive Program for Eligible Clinicians, Physician Quality Reporting System (PQRS), and the Value-Based Payment Modifier (VBM).

MIPS was designed to tie payments to quality and cost efficient care, drive improvement in care processes and health outcomes, increase the use of healthcare information, and reduce the cost of care.

The **MIPS Performance Year** begins on January 1 and ends on December 31 each year. Program participants must report quality data on all cases during one calendar year by March 31 of the following calendar year. For example, program participants who collect data in 2023 will ultimately have their data sent to CMS by March 31, 2024 to be eligible for a payment increase and to avoid a payment reduction for claims filed in 2025.

Payment Adjustment

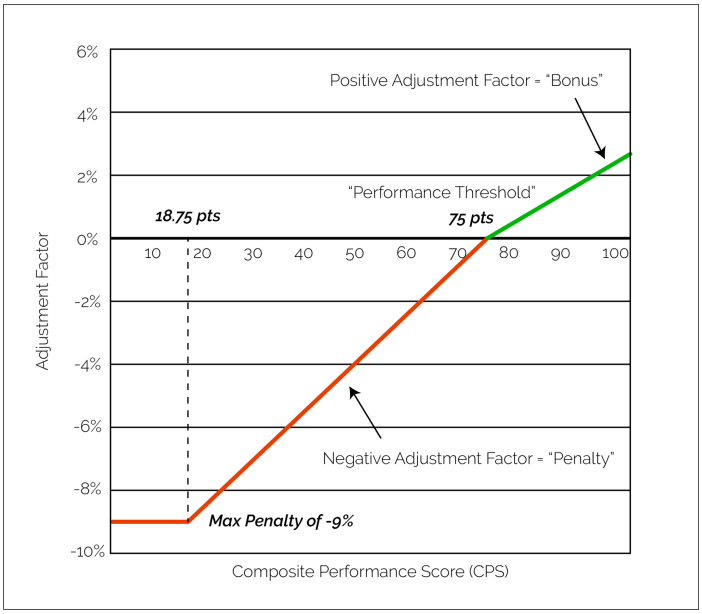
The EP's Payment Adjustment will be negative (i.e. "penalty"), positive (i.e "bonus"), or neutral (i.e. "no adjustment"). This percent change will be recognized on Medicare claims filed by the NPI + TIN combination, two years after the reporting period.

Keep in mind, EPs are defined by their unique NPI + TIN combination, meaning any NPI may have several Payment Adjustments, depending on how many TINs they bill under. For example, if a given NPI files claims with CMS using 4 different TINs, they will receive 4 separate Payment Adjustments. This provides segregation between employers, such that the payment adjustment from one TIN will not affect another TIN's future claims.

The Payment Adjustment is determined by the EP's Composite Performance Score. This is a nonlinear relationship across the entire CPS range (see chart below). While predicting any specific Payment Adjustment is difficult, the table below illustrates some helpful "mile markers", connecting specific payment adjustments to specific Composite Performance Scores.

Payment Adjustment	Composite Performance Score	Common Name
-9%	0 - 18.75	Max Penalty
Linear sliding scale	18.76 - 74.99	
0%	75 (same in 2022)	Performance Threshold
Linear sliding scale	75.01 - 99.99	
+9% (theoretical max)*	100	Maximum Bonus

*Theoretical max bonus is a function of the amount raised from the EPs paying a penalty via negative payment adjustments. Estimates for max bonus will likely be less than 9%.



Composite Performance Score

A CPS ranges from 0 to 100 for each Performance Year.

The CPS is determined by a complex formula consisting of weighted averages from 4 Performance Categories: Promoting Interoperability, Cost, Improvement Activities, and Quality. For "Non-Patient Facing" EPs, the weighted significance of each Performance Category is shown in the table below.

Performance Category	Weight	Notes
Promoting Interoperability	0%	• Re-weighted to 0% for non-patient facing Eligible Providers (e.g. Anesthesiologists and CRNAs)
Cost	30%	• Unclear how this will be determined by CMS • No additional data submission required
Improvement Activities	15%	• Annual attestation of activities performed over the reporting period
Quality	55%	• No limit on number of measures submitted • CMS will only count your top 6 measures

These 4 Performance Categories are used to determine a Composite Performance Score which is then used to determine the Payment Adjustment for each unique NPI + TIN. Let's take a deeper dive into each of the Performance Categories.

Four Performance Categories

1. Promoting Interoperability (0% of CPS)

Most clinicians must collect data using certified electronic health record technology (CEHRT) on the required measures for the same continuous 90 (+)-day in the current performance period. This performance category replaced the Medicare EHR Incentive Program for EPs, commonly known as "Meaningful Use".

In years past, CMS has re-weighted this category to 0% for all anesthesia providers based on their status as "non-patient facing". There is no requirement for anesthesia EPs to use CEHRTs. Instead, the weight for this category is transferred to the Quality category (see below).

2. Cost (30% of CPS)

This performance category replaces the VBM. The cost of the care you provide will be calculated by CMS based on your Medicare claims. MIPS uses cost measures to gauge the total cost of care during the year or during a hospital stay. This is a bit of a black box, in that there is no current way to track or review this component score. Fortunately, there is no additional data submission requirement either.

3. Improvement Activities (15% of CPS)

This category includes an inventory of activities that assess how you improve your care processes, enhance patient engagement in care, and increase access to care. The inventory allows you to choose the activities appropriate to your practice from categories such as, enhancing care coordination, patient and clinician shared decision-making, and expansion of practice access.

This entails a single end-of-year attestation of the following available activities to verify to CMS that the data collected is being used to improve patient care. **These are subject to CMS audits. Please be diligent in the selection for your providers.** (For more detailed information for required validation documentation: https://qpp.cms.gov/mips/improvement-activities)

The IA category accounts for 15% of the Final CPS. To earn full credit in this category, participants must attest to one of the following combinations of activities (each activity must be performed for 90 days or more during the reporting period):

- 2 high-weighted activities
- 1 high-weighted activity and 2 medium-weighted activities
- At least 4 medium-weighted activities

4. Quality (55% of CPS)

This category covers the quality of the care you deliver, based on performance measures created by CMS, as well as medical professional and stakeholder groups. CMS will only use a maximum of 6 measures to determine your quality of care. You must report on at least 70% of your eligible patients for the entire year.

> ***NOTE***: While Graphium Health will report quality data for all 16 MACRA measures described below, CMS will only consider the top 6 measures. So leaving a question blank will NOT necessarily negatively impact your Payment Adjustment, *assuming there are another 6 applicable measures being recorded.*

Category Maximum Points
Each of the 6 MACRA measures is worth a max of 10 points, giving this category a maximum score of 60 points. For example, if you earn a total of 25 points from your top 6 MACRA measures, then you will have earned 41.7 points (=25/60) of the Quality category.

Because the Quality Performance Category is worth 55% of the CPS, the total amount of points from this category towards CPS is 41.7% of 55 = 22.9 points.

Points per Measure
Each MACRA measure is assigned a score ranging from 0 to 10, depending on how your Performance Met for a given measure compares with the measure's national benchmark. In other words, after all quality data has been collected across the country for the entire year, CMS will divide a given measure's Performance Met rates into decile categories to create the measure's benchmark as seen in the table below for QID 430 (Prevention of PONV - Combo Therapy).

Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
31.65 - 87.82	87.83 - 96.42	96.43 - 99.25	99.26 - 99.97	99.98 - 99.99	--	--	100

In this example, if your EP's Performance Met for MIPS 430 was 98.6%, then they would fall in Decile 5, thus earning a total of 5 pts for this measure.

> ***NOTE***: A Performance Rate of 69% for MACRA Measure A may actually be worth more CPS points compared to a 98% Performance Met for MACRA Measure B because the number of points earned for each measure is a function of BOTH your Performance Met AND how it compares to the measure's national benchmark.

Performance Met Percentage
In calculating any individual MACRA measures's Performance Met rate, all anesthesia cases for a given EP during the Reporting Periods are individually evaluated for all the elements required to score the MACRA measure. The individual criteria for each MACRA measure are described on the pages that follow.

Each measure for a given anesthetic case is assigned one of the following states based on the data provided by the EP:

> ***Performance Met***: Case is eligible for this measure (based on denominator criteria), and evaluation of numerator criteria resulted in successful performance
>
> ***Performance Not Met***: Case is eligible for this measure (based on denominator criteria), but evaluation of numerator criteria resulted in failed performance
>
> ***Data Completeness Not Met***: Case is eligible for this measure (based on denominator criteria) but is missing data required for numerator evaluation
>
> ***Ineligible***: Case is ineligible for this measure due to Denominator Exclusion criteria or because of missing fields. Denominator Exclusion criteria is specifically defined in each measure. For example, an ASA Physical Status of 5 may mean a given measure does not apply to a given case. "Performance Met" rate for this measure will not be affected by this case. Please review the measure definition for further details.
>
> ***Denominator Exception***: Based on denominator criteria for this measure, case was eligible, but it was ultimately excluded because it met certain additional criteria as defined by the measure. "Performance Met" rate for this measure will not be affected by this case. Please review the measure definition for further details.

Performance Met rate =

$$\frac{\#\ of\ Performance\ Met\ Cases}{\#\ of\ Performance\ Met\ Cases + \#\ of\ Performance\ NOT\ Met\ Cases}$$

Data Completeness rate =

$$\frac{\#\ of\ Performance\ Met\ Cases + \#\ of\ Performance\ NOT\ Met\ Cases}{\#\ of\ Performance\ Met\ Cases + \#\ of\ Performance\ NOT\ Met\ Cases + \#\ of\ Data\ Completeness\ NOT\ Met\ Cases}$$

Reporting Thresholds, Participation Status, & Reporting Options

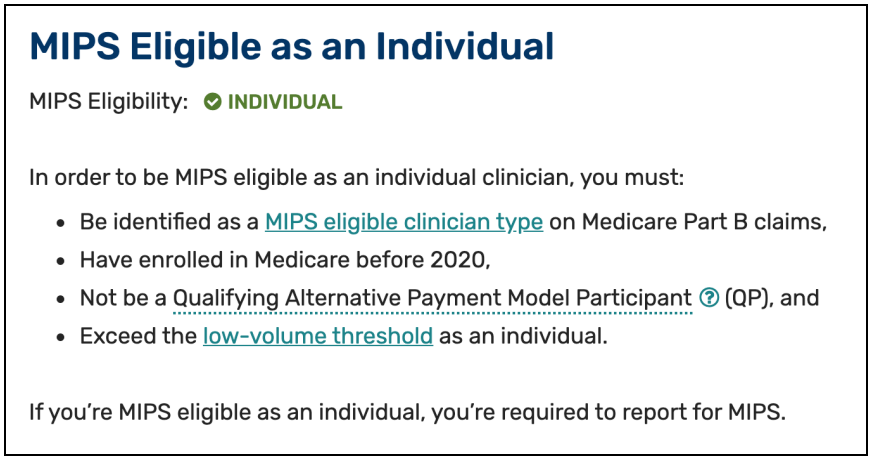
Reporting Thresholds
For the Merit-based Incentive Payment System (MIPS), CMS reviews past and current Medicare Part B Claims and Provider Enrollment, Chain, and Ownership System (PECOS) data for clinicians and practices twice for each Performance Year (each review is called a determination segment). Data from the two segments is then reconciled and released as the final eligibility determination. (https://qpp.cms.gov/mips/how-eligibility-is-determined)

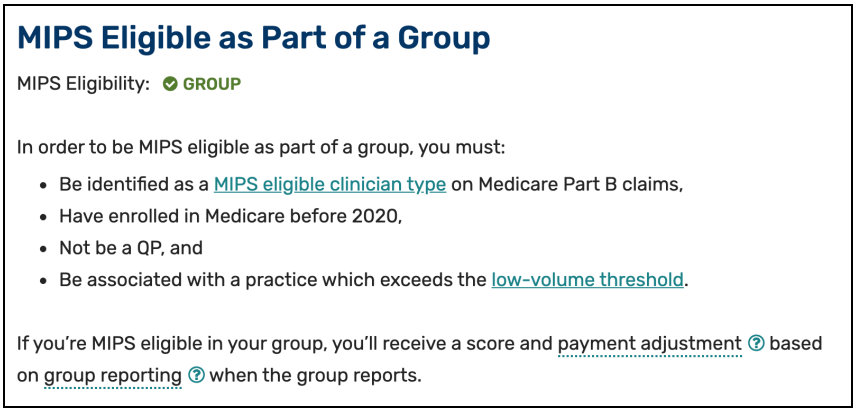
Clinicians and practices must exceed the low-volume threshold during both review periods to be eligible for MIPS.

You must participate in MIPS (unless otherwise exempt) if, in both 12-month segments of the MIPS Determination Period, you:

- Bill more than $90,000 for Part B covered professional services, and
- See more than 200 Part B patients, and;
- Provide more than 200 covered professional services to Part B patients.

Participation Status
There are different ways to become a MIPS eligible clinician, depending on whether you're reporting as an individual or part of a group.





MIPS Eligible as Part of a Group

MIPS Eligibility: GROUP

In order to be MIPS eligible as part of a group, you must:

- Be identified as a MIPS eligible clinician type on Medicare Part B claims,
- Have enrolled in Medicare before 2020,
- Not be a QP, and
- Be associated with a practice which exceeds the low-volume threshold.

If you're MIPS eligible in your group, you'll receive a score and payment adjustment based on group reporting when the group reports.

> ***NOTE***: If CMS determines a given EP is "Individual Exempt" and the EP elects to reports as an Individual, then no Payment Adjustment will be assigned, regardless of data submitted. **It is much more common for EPs to report as a Group because their group volume exceeds the low-volume threshold making them eligible to receive a positive Payment Adjustment.**

Find any EP's Participation Status at: https://qpp.cms.gov/participation-lookup

Reporting: Group vs Individual

Each TIN may report as either a "Group", "Individual", or "Both". Recall "MACRA Exempt" status is evaluated for each NPI on both an *individual* and *group* basis. That is, the "MACRA Exempt" criteria are applied at the NPI level (i.e. all cases for an NPI) and to the TIN level (i.e. all cases for a TIN). If a given NPI is deemed "Individual MACRA Exempt" by CMS and the elect to report as an Individual, then they will not receive a penalty or a bonus. Rather, CMS will label them as a "Voluntary Submitter" and while they still will receive a CPS, it will provide no financial adjustment - negative or positive.

> *Report as an Individual*
> If reporting only as an individual, the NPI's measures and activities for the given TIN will be reported to the QCDR. Composite Performance Scores will be based on individual EP's performance.
>
> *Report as a Group*
> If reporting as a group, all NPIs' measures and activities for the given TIN will be reported to the QCDR. The group's performance data across the 4 Performance Categories for a single TIN will be evaluated in aggregate. Each EP in the TIN group will then receive the same CPS based on the group's performance.
>
> **If reporting as a Group, it is important to ensure you report quality data for ALL NPIs within a given TIN.** For a complete list of all NPIs within your TIN please check your CMS portal at https://portal.cms.gov

II. Improvement Activities

Provide 24/7 Access to MIPS Eligible Clinicians or Groups Who Have Real-Time Access to Patient's Medical Record

Activity Description:
Provide 24/7 access to MIPS eligible clinicians, groups, or care teams for advice about urgent care (e.g., MIPS eligible clinician and care team access to medical record, cross-coverage with access to medical record, or protocol- driven nurse line with access to medical record) that could include one or more of the following:

• Expanded hours in evenings and weekends with access to the patient medical record (e.g., coordinate with small practices to provide alternate hour office visits and urgent care);

• Use of alternatives to increase access to care team by MIPS eligible clinicians and groups, such as e-visits, phone visits, group visits, home visits and alternate locations (e.g., senior centers and assisted living centers); and/or

• Provision of same-day or next-day access to a MIPS eligible clinician, group or care team when needed for urgent care or transition management.

Activity ID:
IA_EPA_1

Subcategory Name:
Expanded Practice Access

Activity Weighting:
High

Regular Review Practices in Place on Targeted Patient Population Needs

Activity Description:
Implement regular reviews of targeted patient population needs, such as structured clinical case reviews, which include access to reports that show unique characteristics of MIPS eligible clinician's patient population, identification of underserved patients, and how clinical treatment needs are being tailored, if necessary, to address unique needs and what resources in the community have been identified as additional resources. The review should consider how structural inequities, such as racism, are influencing patterns of care and consider changes to acknowledge and address them. Reviews should stratify patient data by demographic characteristics and health related social needs to appropriately identify differences among unique populations and assess the drivers of gaps and disparities and identify interventions appropriate for the needs of the sub-populations.

Activity ID:
IA_PM_11

Subcategory Name:
Population Management

Activity Weighting:
Medium

Implementation of documentation improvements for practice/process improvements

Activity Description:
Implementation of practices/processes that document care coordination activities (e.g., a documented care coordination encounter that tracks all clinical staff involved and communications from date patient is scheduled for outpatient procedure through day of procedure).

Activity ID:
IA_CC_8

Subcategory Name:
Care Coordination

Activity Weighting:
Medium

PSH Care Coordination

Activity Description:
Participation in a Perioperative Surgical Home (PSH) that provides a patient-centered, physician-led, interdisciplinary, and team-based system of coordinated patient care, which coordinates care from pre-procedure assessment through the acute care episode, recovery, and post-acute care. This activity allows for reporting of strategies and processes related to care coordination of patients receiving surgical or procedural care within a PSH. The clinician must perform one or more of the following care coordination activities:

• Coordinate with care managers/navigators in preoperative clinic to plan and implementation comprehensive post discharge plan of care;
• Deploy perioperative clinic and care processes to reduce post-operative visits to emergency rooms;
• Implement evidence-informed practices and standardize care across the entire spectrum of surgical patients; or
• Implement processes to ensure effective communications and education of patients' post-discharge instructions.

Activity ID:
IA_CC_15

Subcategory Name:
Care Coordination

Activity Weighting:
Medium

Tracking of clinician's relationship to and responsibility for a patient by reporting MACRA patient relationship codes.

Activity Description:
To receive credit for this improvement activity, a MIPS eligible clinician must attest that they reported MACRA patient relationship codes (PRC) using the applicable HCPCS modifiers on 50 percent or more of their Medicare claims for a minimum of a continuous 90-day period within the performance period. Reporting the PRC modifiers enables the identification of a clinician's relationship with, and responsibility for, a patient at the time of furnishing an item or service. See the CY 2018 PFS final rule (82 FR 53232 through 53234) for more details on these codes.

Activity ID:
IA_CC_19

Subcategory Name:
Care Coordination

Activity Weighting:
High

Collection and follow-up on patient experience and satisfaction data on beneficiary engagement

Activity Description:
Collect and follow up on patient experience and satisfaction data. ***This activity also requires follow-up on findings of assessments, including the development and implementation of improvement plans.*** To fulfill the requirements of this activity, MIPS eligible clinicians can use surveys (e.g., Consumer Assessment of Healthcare Providers and Systems Survey), advisory councils, or other mechanisms. MIPS eligible clinicians may consider implementing patient surveys in multiple languages, based on the needs of their patient population.

Activity ID:
IA_BE_6

Subcategory Name:
Beneficiary Engagement

Activity Weighting:
High

Improved Practices that Engage Patients Pre-Visit

Activity Description:
Implementation of workflow changes that engage patients prior to the visit, such as a pre-visit development of a shared visit agenda with the patient, or targeted pre-visit laboratory testing that will be resulted and available to the MIPS eligible clinician to review and discuss during the patient's appointment.

Activity ID:
IA_BE_22

Subcategory Name:
Beneficiary Engagement

Activity Weighting:
Medium

Participation in an AHRQ-listed patient safety organization.

Activity Description:
Participation in an AHRQ-listed patient safety organization.

Activity ID:
IA_PSPA_1

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Participation in MOC Part IV

Activity Description:
In order to receive credit for this activity, a MIPS eligible clinician must participate in Maintenance of Certification (MOC) Part IV. Maintenance of Certification (MOC) Part IV requires clinicians to perform monthly activities across practice to regularly assess performance by reviewing outcomes addressing identified areas for improvement and evaluating the results.

Some examples of activities that can be completed to receive MOC Part IV credit are: the American Board of Internal Medicine (ABIM) Approved Quality Improvement (AQI) Program, National Cardiovascular Data Registry (NCDR) Clinical Quality Coach, Quality Practice Initiative Certification Program, American Board of Medical Specialties Practice Performance Improvement Module or American Society of Anesthesiologists (ASA) Simulation Education Network, for improving professional practice including participation in a local, regional or national outcomes registry or quality assessment program; specialty- specific activities including Safety Certification in Outpatient Practice Excellence (SCOPE); American Psychiatric Association (APA) Performance in Practice modules.

Activity ID:
IA_PSPA_2

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Use of QCDR data for ongoing practice assessment and improvements

Activity Description:
Participation in a Qualified Clinical Data Registry (QCDR) and use of QCDR data for ongoing practice assessment and improvements in patient safety, including:

• Performance of activities that promote use of standard practices, tools, and processes for quality improvement (for example, documented preventive health efforts, like screening and vaccinations) that can be shared across MIPS eligible clinicians or groups);
• Use of standard questionnaires for assessing improvements in health disparities related to functional health status (for example, use of Seattle Angina Questionnaire, MD Anderson Symptom Inventory, and/or SF-12/VR-12 functional health status assessment);
• Use of standardized processes for screening for drivers of health, such as food security, housing stability, and transportation accessibility;
• Generation and use of regular feedback reports that summarize local practice patterns and treatment outcomes, including for populations that are disadvantaged and/or underserved by the healthcare system;
• Use of processes and tools that engage patients to improve adherence to treatment plans;
• Implementation of patient self-action plans;
• Implementation of shared clinical decision-making capabilities;
• ***Use of QCDR patient experience data to inform and advance improvements in beneficiary engagement;***
• Promotion of collaborative learning network opportunities that are interactive;
• Use of supporting QCDR modules that can be incorporated into the certified EHR technology;
OR
• ***Use of QCDR data for quality improvement, such as comparative analysis across specific patient populations of adverse outcomes after an outpatient surgical procedure and corrective steps to address these outcomes.***

Activity ID:
IA_PSPA_7

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Use of Patient Safety Tools

Activity Description:
In order to receive credit for this activity, a MIPS eligible clinician must use tools that assist specialty practices in tracking specific measures that are meaningful to their practice.

Some examples of tools that could satisfy this activity are: a surgical risk calculator; evidence based protocols, such as Enhanced Recovery After Surgery (ERAS) protocols; the Centers for Disease Control (CDC) Guide for Infection Prevention for Outpatient Settings predictive algorithms; and the opiate risk tool (ORT) or similar tool.

Activity ID:
IA_PSPA_8

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Participation in private payer CPIA

Activity Description:
Participation in designated private payer clinical practice improvement activities.

Activity ID:
IA_PSPA_12

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Participation in Joint Commission Evaluation Initiative

Activity Description:
Participation in Joint Commission Ongoing Professional Practice Evaluation initiative.

Activity ID:
IA_PSPA_13

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Use of decision support and standardized treatment protocols

Activity Description:
Use decision support and standardized treatment protocols to manage workflow in the team to meet patient needs.

Activity ID:
IA_PSPA_16

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Implementation of formal quality improvement methods, practice changes, or other practice improvement processes

Activity Description:
Adopt a formal model for quality improvement and create a culture in which all staff, including leadership, actively participates in improvement activities that could include one or more of the following, such as:

• Participation in multisource feedback;
• Train all staff in quality improvement methods;
• Integrate practice change/quality improvement into staff duties;
• Engage all staff in identifying and testing practices changes;
• Designate regular team meetings to review data and plan improvement cycles;
• ***Promote transparency and accelerate improvement by sharing practice level and panel level quality of care, patient experience and utilization data with staff;***
• Promote transparency and engage patients and families by sharing practice level quality of care, patient experience and utilization data with patients and families, including activities in which clinicians act upon patient experience data;
• Participation in Bridges to Excellence;
• Participation in American Board of Medical Specialties (ABMS) Multi-Specialty Portfolio Program.

Activity ID:
IA_PSPA_19

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Completion of an Accredited Safety or Quality Improvement Program

Activity Description:
Completion of an accredited performance improvement continuing medical education (CME) program that addresses performance or quality improvement according to the following criteria:

• The activity must address a quality or safety gap that is supported by a needs assessment or problem analysis, or must support the completion of such a needs assessment as part of the activity;
• The activity must have specific, measurable aim(s) for improvement;
• The activity must include interventions intended to result in improvement;
• The activity must include data collection and analysis of performance data to assess the impact of the interventions; and
• The accredited program must define meaningful clinician participation in their activity, describe the mechanism for identifying clinicians who meet the requirements, and provide participant completion information.

An example of an activity that could satisfy this improvement activity is completion of an accredited continuing medical education program related to opioid analgesic risk and evaluation strategy (REMS) to address pain control (that is, acute and chronic pain).

Activity ID:
IA_PSPA_28

Subcategory Name:
Patient Safety and Practice Assessment

Activity Weighting:
Medium

Provide Education Opportunities for New Clinicians

Activity Description:
MIPS eligible clinicians acting as a preceptor for clinicians-in-training (such as medical residents/fellows, medical students, physician assistants, nurse practitioners, or clinical nurse specialists) and accepting such clinicians for clinical rotations in community practices in small, underserved, or rural areas.

Activity ID:
IA_AHE_6

Subcategory Name:
Achieving Health Equity

Activity Weighting:
High

Promoting Clinician Well-Being

Activity Description:
Develop and implement programs to support clinician well-being and resilience—for example, through relationship-building opportunities, leadership development plans, or creation of a team within a practice to address clinician well-being—using one of the following approaches:

- Completion of clinician survey on clinician well-being with subsequent implementation of an improvement plan based on the results of the survey.
- Completion of training regarding clinician well-being with subsequent implementation of a plan for improvement.

Activity ID:
IA_BMH_12

Subcategory Name:
Behavioral and Mental Health

Activity Weighting:
High

Create and Implement an Anti-Racism Plan

Activity Description:
Create and implement an anti-racism plan using the CMS Disparities Impact Statement or other anti-racism planning tools. The plan should include a clinic- wide review of existing tools and policies, such as value statements or clinical practice guidelines, to ensure that they include and are aligned with a commitment to anti-racism and an understanding of race as a political and social construct, not a physiological one.

The plan should also identify ways in which issues and gaps identified in the review can be addressed and should include target goals and milestones for addressing prioritized issues and gaps. This may also include an assessment and drafting of an organization's plan to prevent and address racism and/or improve language access and accessibility to ensure services are accessible and understandable for those seeking care. The MIPS eligible clinician or practice can also consider including in their plan ongoing training on anti-racism and/or other processes to support identifying explicit and implicit biases in patient care and addressing historic health inequities experienced by people of color. More information about elements of the CMS Disparities Impact Statement is detailed in the template and action plan document at: https://www.cms.gov/About- CMS/Agency-Information/OMH/Downloads/Disparities-Impact-Statement-508-rev102018.pdf

Activity ID:
IA_AHE_8

Subcategory Name:
Achieving Health Equity

Activity Weighting:
High

Implementation of a Personal Protective Equipment (PPE) Plan

Activity Description:
Implement a plan to acquire, store, maintain, and replenish supplies of personal protective equipment (PPE) for all clinicians or other staff who are in physical proximity to patients.
In accordance with guidance from the Centers for Disease Control and Prevention (CDC) the PPE plan should address:

- Conventional capacity: PPE controls that should be implemented in general infection prevention and control plans in healthcare settings, including training in proper PPE use.
- Contingency capacity: actions that may be used temporarily during periods of expected PPE shortages.
- Crisis capacity: strategies that may need to be considered during periods of known PPE shortages.

The PPE plan should address all of the following types of PPE:

- Standard precautions (e.g., hand hygiene, prevention of needle-stick or sharps injuries, safe waste management, cleaning and disinfection of the environment)
- Eye protection
- Gowns (including coveralls or aprons) • Gloves
- Facemasks
- Respirators (including N95 respirators)

Activity ID:
IA_ERP_4

Subcategory Name:
Emergency Response & Preparedness

Activity Weighting:
Medium

Participation in a 60-day or greater effort to support domestic or international humanitarian needs

Activity Description:
Participation in domestic or international humanitarian volunteer work. Activities that simply involve registration are not sufficient. MIPS eligible clinicians and groups attest to domestic or international humanitarian volunteer work for a period of a continuous 60 days or greater.

Activity ID:
IA_ERP_2

Subcategory Name:
Emergency Response And Preparedness

Activity Weighting:
High

III. MACRA Measures

ABG 40: Hypotension Prevention After Spinal Placement for Elective Cesarean Section

MEASURE DESCRIPTION:
Percentage of patients, who present for elective Caesarean section under spinal anesthesia who have phenylephrine infusions started prophylactically to prevent hypotension.

NQS DOMAIN: Patient Safety

MEASURE TYPE: Process

HIGH PRIORITY STATUS: Yes

HIGH PRIORITY TYPE: Patient Safety:

INVERSE MEASURE: No

RISK ADJUSTED: No

INSTRUCTIONS:
This measure is to be reported each time a patient undergoes spinal anesthesia for elective Caesarean section during the reporting period. Phenylephrine IV infusion is to be started prophylactically in all eligible patients. It is anticipated that qualified anesthesia providers and eligible clinicians who provide denominator-eligible services will submit this measure.

DENOMINATOR:
Patients who have elective Caesarean section and undergo spinal anesthesia.

DENOMINATOR:

Denominator Criteria (Eligible Cases):
All patients who undergo spinal anesthesia electively
AND
Patient encounter during the reporting period (CPT):
`59510, 59514, 59515`
AND
ASA CPT:
`01961, 01968`

Denominator Exclusions:
ASA Physical Status = E

Denominator Exception:
Contraindication to use of phenylephrine infusion (e.g. bradycardia, compromised cardiac function, pre-eclampsia, etc.) (ABG Measure Response Code 1083)

NUMERATOR:
Patients who have a phenylephrine infusion started for prophylactic treatment of hypotension. Numerator Note: Infusion may be started immediately prior to or immediately after placement of spinal.

***Numerator Note*:** Dosing of infusion left to discretion of provider (recommended starting at 50 µg min-1).

Numerator Options:
Performance Met:
Phenylephrine infusion started prophylactically (ABG Measure Response Code 1081)

OR

Performance Not Met:
Phenylephrine infusion NOT started prophylactically (ABG Measure Response Code 1082)

OR

Denominator Exception:
Contraindication to use of phenylephrine infusion (e.g. bradycardia, compromised cardiac function, pre-eclampsia, etc.) (ABG Measure Response Code 1083)

RELEVANT FIELDS

- ASA Physical Status
- ASA CPT code
- C-Section Performed
- Primary Anesthesia Type
- Phenylephrine given

RATIONALE:
Spinal hypotension is common in women who receive spinal anesthesia for Caesarean delivery, with an incidence of up to 71%. Spinal hypotension can occur precipitously and, if severe, can result in important perinatal adverse outcomes, such as maternal nausea and vomiting, fetal acidosis and may be an important contributory factor for maternal death related to regional anaesthesia. Mothers with pre-delivery hypovolemia may be at risk of cardiovascular collapse because the sympathetic blockade may severely decrease venous return. As a consequence, prevention of spinal hypotension has been a key research area within the field of obstetric anesthesia.

To prevent spinal hypotension, a number of approaches have been investigated, notably fluid loading, vasopressors, or both. Despite early enthusiasm, the efficacy of fluid loading for preventing spinal hypotension has been called into question. In contrast, the use of vasopressors has gained increasing prominence as the primary technique for the prevention and treatment of spinal hypotension during Caesarean delivery.

There is accumulating evidence that phenylephrine delivered as an infusion is the most effective method for preventing maternal hypotension and intraoperative nausea or vomiting. In a recent meta-analysis that assessed the harm and benefit of prophylactic phenylephrine infusions, phenylephrine was associated with a reduced risk of pre-delivery hypotension (RR 1⁄4 0.36; 95% CI 1⁄4 0.18–0.73) and nausea and vomiting (R 1⁄4 0.39; 95% CI 1⁄4 0.17–0.91) compared with placebo.25 Furthermore, the use of an ‘on–off’ phenylephrine infusion (commenced at 100mg min21) in combination with crystalloid co-hydration has been shown to nearly eliminate the likelihood of spinal hypotension

REPORTING CODES

ABG Codes	Definition
1081	Phenylephrine infusion started prophylactically
1082	Phenylephrine infusion NOT started prophylactically
1083	Contraindication to use of phenylephrine infusion

ABG 41: Upper Extremity Nerve Blockade in Shoulder Surgery

MEASURE DESCRIPTION:
Percentage of patients who undergo shoulder arthroscopy or shoulder arthroplasty who have an upper extremity nerve blockade performed before or immediately after the procedure.

NQS DOMAIN: Effective Clinical Care

MEASURE TYPE: Process

HIGH PRIORITY STATUS: No

INVERSE MEASURE: No

RISK ADJUSTED: No

INSTRUCTIONS:
This measure is to be reported each time a patient undergoes shoulder arthroscopy or shoulder arthroplasty. Eligible patients should have an upper extremity nerve block placed either before or immediately after the surgical procedure. It is anticipated that qualified anesthesia providers and eligible clinicians who provide denominator-eligible services will submit this measure.

DENOMINATOR:
Patients who have elective shoulder arthroscopy or shoulder arthroplasty.

DENOMINATOR:

Denominator Criteria (Eligible Cases):
Patient encounter during the reporting period (CPT):
23470, 23472, 23473, 23474, 29805, 29806, 29807, 29819, 29820, 29821, 29822, 29823, 29824, 29825, 29826, 29827, 29828
AND
ASA CPT:
01630, 01634, 01636, 01638

Denominator Exclusions:
ASA Physical Status = E
OR
Age <18

NUMERATOR:
Patients who have an upper extremity nerve block placed before or immediately after the procedure.

> ***Numerator Note*:** Upper extremity block may include any one or combination of the following.
>
> • Interscalene
> • Supraclavicular
> • Suprascapular
> • Infraclavicular
> • Axillary
>
> **Numerator Options**:
> ***Performance Met:***
> **Upper extremity nerve block performed** (ABG Measure Response Code 1084)
> **OR**
> ***Performance Not Met:***
> **Upper extremity block not performed** (ABG Measure Response Code 1085)
> **OR**
> ***Denominator Exception:***
> **Contraindication to upper extremity nerve blockade** (ABG Measure Response Code 1086)
> **OR**
> **Patient or surgeon refusal** (ABG Measure Response Code 1086)
> **OR**
> **Surgeon administered nerve block** (ABG Measure Response Code 1087)

RELEVANT FIELDS

- ASA Physical Status
- Date of Birth
- Surgical and ASA CPT Codes
- UE block performed

RATIONALE:
Nerve blocks have several advantages in shoulder surgery. First, nerve blocks provide better pain relief after surgery than the combination of general anesthesia and systemic pain-relieving medications such as opioids that are given after surgery. This is because pain relief provided by nerve blocks is much more specific to the location of the pain. You will also need lower doses of opioids after surgery to control your pain. Opioids have a number of side effects, which are discussed below, so minimizing their use is important. Regional anesthesia provides greater muscle relaxation than general anesthesia. You will also need less anesthesia for the surgery

because your shoulder is totally numb during and after the procedure. That means that you will have less pain, your recovery will be quicker, and your rehabilitation will be easier.
If you happen to receive a block and sedation for surgery instead of receiving general anesthesia, you may avoid many of the side effects and complications associated with general anesthesia, including feeling sick to your stomach or throwing up after anesthesia, commonly known as postoperative nausea and vomiting (PONV)."

REPORTING CODES

ABG Codes	Definition
1084	Upper extremity nerve block performed
1085	Upper extremity nerve block NOT performed
1086	Contraindication to block or Surgeon refusal
1087	Surgeon Administered Nerve Block

ABG 42: Known or Suspected Difficult Airway Mitigation Strategies

MEASURE DESCRIPTION:
Percentage of patients with a known or suspected difficult airway who undergo a planned general endotracheal anesthetic that have both a second provider present at the induction and placement of the endotracheal tube and have difficult airway equipment in the room prior to the induction.

NQS DOMAIN: Patient Safety

MEASURE TYPE: Process

HIGH PRIORITY STATUS: Yes

HIGH PRIORITY TYPE: Patient Safety

INVERSE MEASURE: No

RISK ADJUSTED: No

INSTRUCTIONS:
This measure is to be reported each time an adult patient with a known or suspected difficult airway undergoes a planned general anesthetic requiring placement of an endotracheal tube. At the time of induction and placement of the endotracheal tube a second dedicated provider will be present to serve as an assistant for management of a difficult airway. Additionally, difficult airway equipment will be present in the room prior to induction in the event that such equipment is necessary to assist with placement of the endotracheal tube. 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:
Patients with a known or suspected difficult airway who undergo a planned general endotracheal anesthetic.

DENOMINATOR:

Denominator Criteria (Eligible Cases):
Patient having a GETA (ABG Response Code **1019**)
AND
Patient identified as difficult airway (ABG Measure Response Code **1073**)
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, 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, 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, 01992

Denominator Exclusions:
Age < 18
OR
ASA Physical Status = E

NUMERATOR:
Patients who have a dedicated second provider physically present in the room who is available

to assist with induction and placement of the endotracheal tube.

Numerator Note: suspected difficult airway- A difficult airway is defined as the clinical situation in which a conventionally trained anesthesiologist experiences difficulty with facemask ventilation of the upper airway, difficulty with tracheal intubation, or both. The difficult airway represents a complex interaction between patient factors, the clinical setting, and the skills of the practitioner.

Numerator Note: dedicated second provider- capable healthcare provider whose only responsibility at the time of induction is to provide assistance with management of difficult airway. A dedicated second provider may include operating room staff: physician, certified registered nurse anesthetist, registered nurse, resident, or anesthesia technician.

Numerator Options:
Performance Met:
Second provider present at induction (ABG Measure Response code **1074**)
AND
Use of difficult airway equipment, planned is reported (ABG Measure Response code **036**)

OR

Performance Not Met:
Second provider NOT present at induction (ABG Measure Response code **1075**)
OR
Unplanned use of difficult airway equipment (ABG Measure Response code **037**)

RELEVANT FIELDS

- ASA CPT code
- Date of Birth
- Difficult airway
- Planned use of difficult airway equipment
- Unplanned use of difficult airway equipment

DEFINITIONS:

Numerator Note: suspected difficult airway- A difficult airway is defined as the clinical situation in which a conventionally trained anesthesiologist experiences difficulty with facemask ventilation of the upper airway, difficulty with tracheal intubation, or both. The difficult airway represents a complex interaction between patient factors, the clinical setting, and the skills of the practitioner.

Numerator Note: dedicated second provider- capable healthcare provider whose only responsibility at the time of induction is to provide assistance for management of the difficult airway. A dedicated second provider may include operating room staff: physician, certified registered nurse anesthetist, registered nurse, resident or anesthesia technician.

Numerator Note: Difficult airway equipment- The definition of “difficult airway equipment” for this measure includes any advanced airway devices such as video laryngoscopes, intubating LMA, fiberoptic bronchoscope, Bullard, etc. Stylets and/or bougies unless they have been modified to include a light source or some other mechanical addition to manipulate their placement are not considered “difficult airway equipment”.

REPORTING CODES

ABG Codes	Definition
1019	Has a non-emergency procedure in which the anesthesia plan calls for general anesthesia with endotracheal intubation
1073	Patient is identified as a known or suspected difficult airway in the pre-operative period
1074	A dedicated second provider is present at induction and placement of the endotracheal tube
036	Difficult airway equipment is present in the room prior to the induction of anesthesia
1075	A dedicated second provider is NOT present at induction and placement of the endotracheal tube
037	Difficult airway equipment is NOT present in the room prior to the induction of anesthesia

ABG 43: Use of Capnography for Non-Operating Room Anesthesia

NQS DOMAIN: Patient Safety

MEASURE TYPE: Process

HIGH PRIORITY STATUS: Yes

HIGH PRIORITY TYPE: Patient Safety

INVERSE MEASURE: No

RISK ADJUSTED: No

DESCRIPTION:
Percentage of patients receiving anesthesia in a non-operating room setting who have end-tidal carbon dioxide (ETCO2) monitored using capnography.

INSTRUCTIONS:
This measure is to be reported each time a patient receives anesthesia in a non-operating room setting. End-tidal carbon dioxide (ETCO2) can be recorded in the medical record with either a qualitative ("+") or quantitative measure (numerical value).

DENOMINATOR:
All patients receiving anesthesia in a non-operating room setting for whom select CPT codes are reported.

> **Denominator Criteria (Eligible Cases):**
> **Patients receiving anesthesia in a non-operating room setting** (Measure response code 1088)
> **AND**
> **Patient procedures during reporting period (CPT):**
> `00104, 00410, 00731, 00732, 00811, 00812, 00813, 01922`
>
> **DENOMINATOR EXCLUSION:**
> **Patients receiving anesthesia in an operating room setting**

NUMERATOR:
Patients who have end-tidal carbon dioxide (ETCO2) monitoring using capnography.

Numerator Definition: Operating room is defined as a permanent fixed location in which procedures are performed and is equipped with a dedicated anesthesia machine (mechanical ventilator and inhalational anesthetic delivery system) with standard OR monitors (BP, EKG, pulse oximetry, end tidal CO2). Procedure rooms where anesthesia machines and standard monitors are made available on an "as needed" basis are not considered operating rooms for the purposes of this measure.

Numerator Options:

Performance Met:

Clinician monitored end-tidal carbon dioxide (ETCO2) using capnography. End- tidal carbon dioxide can be recorded in the medical record with either a qualitative ("+") or quantitative measure (numerical value). (**MEDNAX 53A**)

OR

Performance Not Met:

Clinician did not monitor end-tidal carbon dioxide using capnography. (**MEDNAX 53B**)

RATIONALE:

The use of capnography when administering anesthesia in non-operating room sites is highly variable. To assess current use of capnography in non-OR settings, MEDNAX conducted a random audit of 100 anesthesia cases among all MEDNAX group practices participating in the MEDNAX QCDR. These cases were performed during the first 6 months of 2018 and represented either anesthesia for screening colonoscopy (CPT 00812) or anesthesia for non-invasive radiologic imaging (CPT 01922). In 76% of these cases, anesthesiologists documented use of end-tidal CO2 monitoring while in 24% of cases, such monitoring was not documented.

Anecdotally, monitoring of end-tidal carbon dioxide (ETCO2) occurs in a minority of cases outside of the operating room. This is despite evidence that it reduces hypoxemic events: "Meta-analysis of RCTs indicate that the use of continuous end-tidal carbon dioxide monitoring (i.e., capnography) is associated with a reduced frequency of hypoxemic events (i.e., oxygen saturation less than 90%) when compared to monitoring without capnography (e.g., practitioners were blinded to capnography results) during procedures with moderate sedation (category A1-B evidence)."

Capnography use helps avoid adverse events in numerous settings, including the pediatric emergency room: "Hypoventilation is common during sedation of pediatric emergency department patients. This can be difficult to detect by current monitoring methods other than capnography. Providers with access to capnography provided fewer but more timely interventions for hypoventilation. This led to fewer episodes of hypoventilation and of oxygen desaturation."3 In addition, monitoring of end-tidal carbon dioxide reduces complications in advanced endoscopic procedures: "Capnographic monitoring of respiratory activity improves patient safety during procedural sedation for elective ERCP/EUS by reducing the frequency of hypoxemia, severe hypoxemia, and apnea."

Finally, the use of capnography is not only cost efficient, it may create cost savings: “Capnography is estimated to be cost-effective if not cost saving during PSA (procedural sedation/analgesia) for gastrointestinal endoscopy. Savings were driven by improved patient safety, suggesting that capnography may have an important role in the safe provision of PSA

RELEVANT FIELDS

- ASA CPT code
- Primary Type of Anesthesia
- Non-OR Location
- Use of ETCO2

REPORTING CODES

Response Codes	Definition
1088	Patients receiving anesthesia in a non-operating room setting
Mednax 53A	Clinician monitored end-tidal carbon dioxide (ETCO2) using capnography.
Mednax 53B	Clinician did not monitor end-tidal carbon dioxide using capnography

ABG 44: Low Flow Inhalational General Anesthesia

MEASURE DESCRIPTION
Percentage of patients aged 18 years or older, who undergo an elective procedure lasting 30 minutes or longer requiring inhalational general anesthesia who during the maintenance phase of the anesthetic have a total fresh gas flow less than or equal to 1 L/min (less than or equal to 2 L/min for Sevoflurane).

NQS DOMAIN / MEANINGFUL MEASURES AREA
Efficient Use of Healthcare Resources/Clinical Process/Effectiveness

MEASURE TYPE
Process

HIGH PRIORITY STATUS
Yes

INVERSE MEASURE
No

INSTRUCTIONS
This measure is to be reported each time a patient undergoes an elective procedure in which inhalational general anesthesia is used. 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 lasting 30 minutes or longer requiring inhalational general anesthesia. (**1095**)

Denominator Criteria (Eligible Cases)
Patients aged 18 years and older
AND
Elective procedure
AND
Patient who receives inhalational general anesthesia
AND
Procedure lasts 30 minutes or longer

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, 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

Denominator Exceptions

Patient or technical reason exists for not providing low flow inhalational anesthesia (e.g., flow meter not capable of generating low flows, patient hypermetabolic, lack of CO2 absorbents without KOH and low concentrations of NaOH, etc.) (**1096**)

NUMERATOR

Patients who undergo an elective procedure lasting 30 minutes or longer requiring inhalational general anesthesia who during the maintenance phase of the anesthetic have a total fresh gas flow less than or equal to1 L/min (less than or equal to 2 L/min for Sevoflurane).

Numerator Definition

Inhalational general anesthesia is defined as the use of at least one inhalational anesthetic gas (e.g., halothane, isoflurane, desflurane, sevoflurane, nitrous oxide) as the primary mode of anesthesia for the procedure.

The maintenance phase of the inhalational anesthetic is defined as the portion of the case in which Stage III surgical anesthesia (e.g., unconsciousness, amnesia, immobility, unresponsive to surgical stimulation) is achieved at a safe anesthetic depth while also maintaining respiratory and hemodynamic stability. This occurs between the induction and emergence phases of the case.1

Fresh gas flow (FGF) is defined as the combined admixture of medical gases such as air, oxygen, or nitrous oxide as well as volatile anesthetics as set by the anesthesia provider.

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:

The total FGF is reduced to less than or equal to 1 L/min (less than or equal to 2 L/min for Sevoflurane) for the duration of the maintenance phase of the anesthetic (**1097**).

OR

Performance Not Met:

The total FGF is greater than 1 L/min (greater than 2 L/min for Sevoflurane) for the duration of the maintenance phase of the anesthetic (**1098**).

RATIONALE

Managing Fresh Gas Flow to Reduce Environmental Contamination

Introduction

When using a circle anesthesia system, any anesthetic gases and vapors that enter the scavenging system will flow through the hospital vacuum system and ultimately be vented outside the hospital to the atmosphere. The total fresh gas flow determines the amount of gas entering the scavenging system per minute. Whenever fresh gas flow exceeds the patient‘s requirement, gases and vapors will enter the scavenging system and ultimately contaminate the atmosphere. By choosing the minimal total fresh gas flow, the environmental impact of anesthetic vapors and gases can be minimized. Although the environmental impact of a single case may be minimal, every practitioner can make a significant difference over the thousands of procedures during their career by practicing careful fresh gas flow management for each case. There are three strategies to minimize fresh gas flow and environmental contamination. To implement these strategies, it is important to understand how to utilize anesthetic agent and oxygen concentration monitors to safely deliver the minimum fresh gas flow.

Strategy #1: Minimize Fresh Gas Flow During Maintenance

With this background, the first strategy to reduce the environmental impact of anesthetic vapors is to minimize the fresh gas flow during the maintenance phase of the case. As an example of a

low, or minimal, flow anesthetic technique, consider a case of a 70 kg male requiring general anesthesia. Following intravenous induction, isoflurane was administered using oxygen and air at 2 L/min each for a total fresh gas flow of 4 L/min. Once the exhaled concentration of isoflurane is close to the inspired concentration, uptake from the lungs has slowed and the fresh gas flow can be reduced. Assuming oxygen consumption to be about 350 mL/min, the oxygen flow can be set to 350 mL/min. The air flowmeter can be set at 500 mL/min which would deliver an additional 105 mL/min of oxygen and the total fresh gas flow will be less than 1 L/min. If nitrous oxide is used, the oxygen flowmeter should be set to 500 mL/min at a minimum and nitrous oxide at 500 mL/min.

Managing this technique requires that the inspired oxygen concentration be monitored. If oxygen consumption exceeds the total oxygen delivered, the inspired oxygen concentration will diminish over time, which will be an indication that oxygen flow needs to be increased. There is still some environmental contamination with this technique, since the total fresh gas flow exceeds what is consumed, but it is easier to manage than a true “closed circuit” technique. Unless the patient has a large oxygen consumption (e.g., trauma, pregnancy) it should be possible during the maintenance phase of anesthesia to limit the fresh gas flow to a maximum of 1 L/minute. For smaller patients with even lower oxygen consumption requirements, the maintenance fresh gas flow can be reduced even further with the same caveat of monitoring inspired oxygen concentration.

Greening the Operating Room and Perioperative Arena: Environmental Sustainability for Anesthesia Practice. Task Force on Environmental Sustainability Committee on Equipment and Facilities, American Society of Anesthesiologists (ASA).

https://www.asahq.org/about-asa/governance-and-committees/asa-committees/committee-on-equipment-and- facilities/environmental-sustainability/greening-the-operating-room#3gas

Described in 1952 by Foldes, the technique of reducing the fresh gas flow during an anesthetic to a level < 1 L/min is both safe and effective.2 Additionally, there are benefits to both the patient, cost savings to the facility and benefits to the environment.3

- The inhalational anesthetic agents sevoflurane isoflurane and desflurane have global warming potentials 2-3 orders of magnitude higher than CO2.3
- Nitrous oxide contributes significantly to global warming and ozone depletion.3
- 5% of the carbon footprint (CO2e) of the British National Health System is attributable to exhaled anesthetic agents.3
- Reducing the environmental impact of anesthesia, can be achieved through behavior change.3
- The chemical properties and global warming impacts of these gases vary, with atmospheric lifetimes of 1−5 years for sevoflurane, 3−6 years for isoflurane, 9−21 years for desflurane, and 114 years for N2O.4

- The conservation of heat and moisture within the breathing system is an added benefit of low flow anesthesia to the patient especially when humidifier connection filters are not used.
- Low flow anesthesia can result in cost savings even when the increased cost of CO2 absorber is factored in,
- especially with regards to usage of Sevoflurane and Desflurane.5
- The simulated low flow anesthesia of 1 L/min FGF across all agents predicted a 48% reduction in costs of volatile anesthetics at a tertiary hospital.6

RELEVANT FIELDS:

- ASA CPT code
- Inhalational agent used
- Anes Start
- Anes End
- Emergency status
- Patient age

REPORTING CODES

ABG 44 Code	Definition
1095	All patients aged 18 years or older, who undergo an elective procedure lasting 30 minutes or longer requiring inhalational general anesthesia.
1096	Patient or technical reason exists for not providing low flow inhalational anesthesia
1097	The total FGF is reduced to less than or equal to 1 L/min (less than or equal to 2 L/min for Sevoflurane) for the duration of the maintenance phase of the anesthetic
1098	The total FGF is greater than 1 L/min (greater than 2 L/min for Sevoflurane) for the duration of the maintenance phase of the anesthetic

AQI 48: Patient-Reported Experience with Anesthesia***

MEASURE DESCRIPTION:
Percentage of patients aged 18 and older, who were surveyed on their patient experience and satisfaction with anesthesia care and who reported a positive experience.

This measure will consist of two performance rates:

> **AQI48a**: Percentage of patients, aged 18 and older, who were surveyed on their patient experience and satisfaction with anesthesia care
> **AQI48b**: Percentage of patients, aged 18 and older, who completed a survey on their patient experience and satisfaction with anesthesia care and who report a positive experience with anesthesia care

NOTE: The measure requires that a valid survey, as defined in the numerator of 48a, be sent to patients between discharge from the facility and within 30 days of facility discharge. To report AQI 48b, a minimum number of 20 surveys, as described in the numerator of 48a, with the mandatory question completed must be reported. **In order to be scored on this measure, clinicians must report BOTH AQI48a AND AQI48b.**

NQS DOMAIN / MEANINGFUL MEASURES AREA: Person and Caregiver-Centered Experience and Outcomes / Patient's Experience of Care

MEASURE TYPE: Patient-Reported Outcome

HIGH PRIORITY STATUS: Yes

INVERSE MEASURE: No

INSTRUCTIONS:
This measure consists of two performance rates: AQI48a and AQI48b. AQI48a should be reported each time a patient undergoes a procedure under anesthesia. AQI48b should be reported every time a completed survey is returned by the patient. To be scored on AQI48b, the provider must collect the individual scores received on the survey as described in AQI48a. It is anticipated that qualified anesthesia providers and eligible clinicians who provide denominator-eligible services will submit this measure.

RATIONALE:
Despite the implementation of CAHPS and H-CAHPS, there is a persistent gap in the ability to adequately measure patient experience on the selection of performance measures for performance-based payment programs. To provide high quality, patient-centered care in the future, anesthesiologists and other qualified anesthesia providers should measure and respond

to the patients' perception of the degree to which they felt they were treated as individuals and empowered by their anesthesiology practitioners to engage in decision-making for their care. The assessment of patient satisfaction with anesthesia care provides important feedback which enables providers to improve care delivery and quality. At present there is a vast array of tools available for practices and individuals to implement based upon local patient populations and for local quality improvement initiatives.

OVERALL PERFORMANCE RATE FOR SCORING: AQI48b

AQI 48a

DESCRIPTION-AQI48A
Percentage of patients, aged 18 and older, who were surveyed on their patient experience and satisfaction with anesthesia care.

DENOMINATOR-AQI48A
Patients aged 18 and older, who undergo a procedure* under anesthesia

Definition: *Any procedure including surgical, therapeutic or diagnostic

Denominator Criteria (Eligible Cases):
Patient aged 18 years or older on date of encounter
AND
AQI 48a: 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, 20526, 20550, 20551, 20552, 20553, 20600, 20604, 20605, 20606, 20610, 20611, 27096, 36555, 36556, 36570, 36571, 36578, 36580, 36581, 36582, 36583, 36584, 36585, 62263, 62264, 62270, 62272, 62273, 62280, 62281, 62282, 62320, 62321, 62322, 62323, 62324, 62325, 62326, 62327, 62328, 62329, 62350, 62355, 62360, 62361, 62362, 62365, 62370, 63650, 63661, 63662, 63663, 63664, 63685, 63688, 64400, 64405, 64408, 64415, 64416, 64417, 64418, 64420, 64425, 64430, 64435, 64445, 64446, 64447, 64448, 64449, 64450, 64451, 64454, 64461, 64463, 64479, 64483, 64486, 64487, 64488, 64489, 64490, 64493, 64505, 64510, 64517, 64520, 64530, 64600, 64605, 64610, 64620, 64624, 64625, 64630, 64633, 64635, 64640, 64680, 64681, 72275, 93503, 95990, 95991

Denominator Exclusions-AQI48a
Organ Donors as designated with ASA Physical Status 6
OR
Patient died within 30 days of the procedure (10A11)

NUMERATOR-AQI48A:
Patients who received a survey within 30 days of the procedure to assess their experience and satisfaction with anesthesia.

Numerator Note: The survey should be administered to the patient shortly following discharge from the facility.

Definition: Practices and eligible clinicians may customize their patient experience and satisfaction with anesthesia surveys to meet local needs but, at a minimum, a valid survey must include a core set of questions that address three of the four following criteria related to patient experience and satisfaction and one mandatory question described below.

1. Pre-operative Education and Preparation
2. Patient and/or Family Communication
3. Care Team Response to Comfort and Well-Being
4. Post-operative pain control and/or management

Mandatory question that must be included in each valid survey (practices must also include an option for patient to indicate “Not Applicable”):

> On a scale of 1 to 5, where 1 indicates the worst anesthesia experience and where 5 indicates the best anesthesia experience, how would you rate your anesthesia experience?

Numerator Note: Practices and eligible clinicians may wish to supplement these questions by taking into consideration the recommendations of the ASA Committee on Performance and Outcomes Measurement work product entitled "Patient Satisfaction with Anesthesia White Paper."

Numerator Note: Depending on local practice, practices and eligible clinicians may wish to supplement survey questions by taking into consideration the recommendations developed as part of the Perioperative Surgical Home (PSH) that are structured in five distinct components.

1. Pre-Operative Education and Preparation (Four Indicators)
    a. Patient comfort with instructions provided about eating better
    b. Patient comfort with instructions provided about exercise or physical therapy
    c. Patient comfort with instructions provided about stopping smoking (if applicable)
    d. Patient comfort with instructions provided about what to do after surgery
2. Check-In and Pre-Procedure Experience
3. Caregiver and Family Communication during Surgery
4. Care Team Response to Comfort and Well-Being
5. Post-Operative Pain Management

For more information on these resources, visit https://www.asahq.org/psh.

Numerator Options:

Performance Met:

Patient provided with a survey within 30 days of the procedure to assess their experience and satisfaction with anesthesia (**10A12**)

OR

Denominator Exception

Documentation of patient reason(s), process reason(s)or medical reason(s) for not receiving survey (i.e. patients who are non-verbal, who are unable to be surveyed due to a medical or psychiatric reason, who are unable to be surveyed due to a language barrier, have not provided contact information who are discharged to assisted living, skilled nursing facility or other similar location where direct access to the patient is not available, or who decline to be surveyed. (**10A13**)

OR

Performance Not Met:

Patient was not provided with a survey within 30 days of the procedure to assess their experience and satisfaction with anesthesia (**10A14**)

RELEVANT FIELDS

- Date of procedure

- Date of birth
- ASA CPT code
- ASA physical status
- Received a survey within 30 days

REPORTING CODES

AQI 48a Code	Definition
10A12	Patient provided with a survey within 30 days of the procedure to assess their experience and satisfaction with anesthesia
10A13	Documentation of patient reason(s), process reason(s)or medical reason(s) for not receiving survey (i.e. patients who are non-verbal, who are unable to be surveyed due to a medical or psychiatric reason, who are unable to be surveyed due to a language barrier, have not provided contact information who are discharged to assisted living, skilled nursing facility or other similar location where direct access to the patient is not available, or who decline to be surveyed.
10A14	Patient was not provided with a survey within 30 days of the procedure to assess their experience and satisfaction with anesthesia

AQI 48b

DESCRIPTION-AQI48B:
Percentage of patients who complete the survey from AQI48a on their patient experience and satisfaction with anesthesia care and report a positive experience.

DENOMINATOR-AQI48B:
All patients from the numerator of AQI48a who complete a survey on their patient experience and satisfaction with anesthesia care

> ***DENOMINATOR NOTE***: In order to report AQI48b, the denominator must include a minimum of 20 returned surveys.
>
> **Denominator Criteria (Eligible Cases):**
> **Patient completed a survey on their patient experience and satisfaction with anesthesia care**: 10A72
>
> **Denominator Exclusions-AQI48b**
> **Patient did not complete the mandatory anesthesia satisfaction question**: 10A69

NUMERATOR- AQI 48B:
Patients who reported a positive experience with anesthesia care.

> ***Definition***: A positive experience is defined as a response of 4 or 5 on the following mandatory patient experience and satisfaction survey question:
>
> On a scale of 1 to 5, where 1 indicates the worst anesthesia experience and where 5 indicates the best anesthesia experience, how would you rate your anesthesia experience? (Practices must include an option for patient to indicate “Not Applicable”)
>
> **Numerator Options:**
> **Note**: To report this measure, the provider must report the individual patient scores. A percentage reporting a positive experience will be calculated on the provider’s behalf.
>
> ***Performance Met:***
> Patient reported a positive anesthesia experience (i.e., a 4 or 5 on the mandatory survey question) (**10A70**)

OR

> ***Performance Not Met:***
> Patient did NOT report a positive anesthesia experience (i.e., a 1, 2, or 3 on the mandatory survey question) (**10A71**)

RELEVANT FIELDS

- Date of procedure
- Date of birth
- ASA CPT code
- ASA physical status
- Received a survey within 30 days
- Survey response received
- Survey response answer

REPORTING CODES

AQI 48b Code	Definition
10A72	Patient completed a survey on their patient experience and satisfaction with anesthesia care
10A69	Patient did not complete the mandatory anesthesia satisfaction question
10A70	Patient reported a positive anesthesia experience (i.e., a 4 or 5 on the mandatory survey question)
10A71	Patient did NOT report a positive anesthesia experience (i.e., a 1, 2, or 3 on the mandatory survey question)

AQI 56: 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.

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
> **OR**
> **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 Options:

Performance Met:

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

OR

Performance Not Met:

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

OR

Denominator Exception:

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

RATIONALE:

Regional anesthesia is associated with improved patient outcomes and lower postoperative morbidity and mortality compared to general anesthesia in patients undergoing TKA. Patients receiving neuraxial anesthesia typically lose less blood during surgery, leading to reduced need for many blood transfusions. Additionally, some studies support the notion that spinal anesthesia is associated with lower incidence of surgical site infection when compared to general anesthesia. 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. 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.

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.

RELEVANT FIELDS

- ASA and surgical CPT code
- Neuraxial anesthesia provided

REPORTING CODES

AQI 62 Code	Definition
10A78	Neuraxial anesthesia and/or a peripheral nerve block was used

10A79	Neuraxial anesthesia and/or a peripheral nerve block was NOT used
11A01	Documentation of patient reason(s) for not using either neuraxial anesthesia or a peripheral nerve block (e.g., patient refusal)

AQI 65: Avoidance of Cerebral Hyperthermia for Procedures Involving Cardiopulmonary Bypass

MEASURE DESCRIPTION:
Percentage of patients, aged 18 years and older, undergoing a procedure using cardiopulmonary bypass who did not have a documented intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperature ≥37.0 degrees Celsius during the period of cardiopulmonary bypass.

NQS DOMAIN/MEANINGFUL MEASURES AREA
Patient Safety/Preventable Healthcare Harm

MEASURE TYPE
Outcome

HIGH PRIORITY STATUS
Yes

INVERSE MEASURE
No

INSTRUCTIONS
This measure is to be reported each time a patient undergoes a cardiac operation using cardiopulmonary bypass 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
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.

DENOMINATOR
All patients aged 18 years or older, who undergo a procedure using cardiopulmonary bypass

Denominator Criteria (Eligible Cases):
Patient aged 18 years and older
AND
Patient encounter during the reporting period (CPT):
00562, 00563, 00567, 00580

DENOMINATOR EXCLUSIONS

Procedure reduced or discontinued prior to initiation of CPB as indicated on the claim by Modifier 52 or Modifier 53.

NUMERATOR

Patients who did not have an intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperature ≥37.0 degrees Celsius during cardiopulmonary bypass

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

Performance Met:
All intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperatures <37.0 degrees Celsius during cardiopulmonary bypass (**11A11**)

OR

Performance Not Met:
At least one intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperature ≥37.0 degrees Celsius (**11A12**)

OR

No documented pulmonary artery, oropharyngeal, or nasopharyngeal temperatures during cardiopulmonary bypass (**11A13**)

RATIONALE

Appropriate temperature management in the setting of cardiopulmonary bypass (CPB) is important to avoid cerebral hyperthermia and associated cerebral injury. Studies have associated cerebral hyperthermia with complications such as cognitive dysfunction, mediastinitis, and acute kidney injury. Through careful monitoring, good communication with perfusionists, and the assurance of appropriate rewarming strategies, anesthesiologists can prevent cerebral hyperthermia.

RELEVANT FIELDS

- Date of service
- Date of birth
- ASA CPT code
- CBP performed
- Hypothermia status

REPORTING CODES

AQI 68 Code	Definition
11A11	All intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperatures <37.0 degrees Celsius during cardiopulmonary bypass

11A12	At least one intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperature ≥37.0 degrees Celsius
11A13	No documented pulmonary artery, oropharyngeal, or nasopharyngeal temperatures during cardiopulmonary bypass

AQI 68: Obstructive Sleep Apnea: Mitigation Strategies

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 (OSA) AND, if positive, for whom two or more selected mitigation strategies were used prior to PACU discharge.

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 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.

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:

None

NUMERATOR:

Patients who are screened for obstructive sleep apnea AND, if positive, have documentation that two or more of the following mitigation strategies were used prior to PACU discharge:

- Preoperative initiation of continuous positive airway pressure (CPAP) or non-invasive positive pressure ventilation (NIPPV)
- Preoperative use of mandibular advancement devices or oral appliances
- Intraoperative administration of CPAP, nasopharyngeal airway, or oral appliance during sedation
- Use of major conduction anesthesia (spinal/epidural) or peripheral nerve block
- Multimodal analgesia
- Extubation while patient is awake
- Verification of full reversal of neuromuscular block
- Extubation and recovery carried out in lateral, semiupright, or other nonsupine position
- Postoperative administration of CPAP, nasopharyngeal airway, or oral appliance in the
- postanesthesia care unit (PACU)

Numerator Options:

Performance Met:

Positive patient screen for OSA OR existing OSA diagnosis AND documentation of two or more mitigation strategies used prior to PACU discharge (**11A26**)

OR

Performance Met:

Negative patient screen for OSA (**11A27**)

OR

Denominator Exception:

Documentation of medical reason(s) for not screening for obstructive sleep apnea and/or documenting the use of two or more mitigation strategies (e.g., patient remains intubated postoperatively, listed mitigation strategies contraindicated, other medical reason(s)) (**11A38**)

OR

Performance Not Met:

No patient screen for OSA OR positive OSA screen result and Documentation of less than 2 mitigation strategies used prior to PACU discharge (**11A28**)

RATIONALE:

Undiagnosed OSA may pose a variety of problems for anesthesiologists and qualified anesthesia providers. A number of case reports have documented an increase in the incidence of postoperative complications and deaths among patients suspected of having OSA. Untreated OSA patients are known to have a higher incidence of difficult intubation, postoperative complications, increased intensive care unit admissions, and greater duration of hospital stay. Identifying patients with OSA is the first step in preventing postoperative complications due to OSA. Moderate-to-severe sleep apnea is independently associated with a large increased risk of all-cause mortality, incident stroke, and cancer incidence and mortality in this community-based sample. With improved preoperative assessment of OSA risk, anesthesiologists are better able to tailor their care to the individual patient's needs through a variety of techniques and mitigation strategies.

RELEVANT FIELDS

- Date of service
- Date of birth
- ASA CPT code
- Elective case
- Primary type of anesthesia
- Existing OSA diagnosis
- OSA screening results
- ≥2 OSA mitigation strategies used

REPORTING CODES

AQI 68 Code	Definition
G9643	Elective procedure
11A26	Positive patient screen for OSA OR existing OSA diagnosis AND documentation of two or more mitigation strategies used prior to PACU discharge
11A27	Negative patient screen for OSA
11A38	Documentation of medical reason(s) for not screening for obstructive sleep apnea and/or documenting the use of two or more mitigation strategies (e.g., patient remains intubated postoperatively, listed mitigation strategies contraindicated, other medical reason(s))
11A28	No patient screen for OSA OR positive OSA screen result and Documentation of less than 2 mitigation strategies used prior to PACU discharge

AQI 72: Perioperative Anemia Management

MEASURE DESCRIPTION
Percentage of patients, aged 18 years and older, undergoing elective total joint arthroplasty who were screened for anemia preoperatively AND, if positive, have documentation that one or more of the following management strategies were used prior to PACU discharge.

Management strategies include one or more of the following:

- Cell salvage techniques employed intraoperatively
- Intraoperative antifibrinolytic therapy or tourniquet, if not contraindicated
- Preoperative iron supplementation, epoetin alpha
- Use of evidence-based preoperative anemia management algorithm supplemented with laboratory testing and/or multidisciplinary consult

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 patient undergoes an elective total joint arthroplasty procedure 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
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
Patients, aged 18 years and older, undergoing elective total joint arthroplasty.

Denominator Note:

For the purpose of this measure, total joint arthroplasty includes arthroplasty of the knee, hip, and shoulder.

Denominator Criteria (Eligible Cases):
All patients, aged 18 years and older
AND
Elective Surgery: G9643
AND
Patient encounter during the reporting period (CPT):
01214, 01215, 01402, 01638

DENOMINATOR EXCLUSIONS
Surgeon or other non-anesthesia professional clinician completed one or more of the management strategies without direction or assistance from the anesthesia professional. (**11A80)**

NUMERATOR
Patients who were screened for anemia preoperatively AND, if positive, have documentation that one or more of the following management strategies were used prior to PACU discharge.

Management strategies include one or more of the following:
- Cell salvage techniques employed intraoperatively
- Intraoperative antifibrinolytic therapy or tourniquet, if not contraindicated
- Preoperative iron supplementation, epoetin alpha
- Use of evidence-based preoperative anemia management algorithm supplemented with laboratory testing and/or multidisciplinary consult

Numerator Definition: For the purpose of this measure, a positive preoperative anemia screening result is defined as a Hgb value <13 gm/dL all adults, regardless of gender.

Numerator note: Preoperative screening for anemia could include any of the following tests: complete blood count (CBC), arterial blood gas (ABG), venous blood gas (VBG), or other point of care hemoglobin/hematocrit test within 90 days and until one day prior to the surgical procedure.

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:
Patient was screened for anemia preoperatively AND documentation of one or more selected management strategies used prior to PACU discharge. (**11A67**)

OR

Denominator Exception:
Negative preoperative anemia screening result. (**11A68**)

OR

Denominator Exception:
Documentation of medical or patient reason(s) for not screening for anemia and/or using selected management strategies (e.g., patient refusal, contraindication, etc.). (**11A69**)

OR

Performance Not Met:
No preoperative patient screen for anemia OR positive preoperative anemia screening result and no documentation of one or more selected management strategies used prior to PACU discharge. (**11A70**)

RATIONALE

Anemia is a common complication of many chronic illnesses that interferes with iron absorption. It has been estimated that at least one-third of patients undergoing non-emergent surgical procedures have potentially treatable anemia. Preoperative anemia is associated with increased need for perioperative blood transfusion as well as significant perioperative morbidity and mortality. Appropriate preoperative anemia management can reduce the risk of perioperative blood transfusion, help identify co-morbidities, and improve perioperative outcomes by improving patients' readiness for surgery. The 2015 American Society of Anesthesiologists Guideline on Perioperative Blood Management indicate "TEG and ROTEM-guided algorithms are shown to be effective in reducing blood transfusion requirements." Additionally, studies have found that preoperative anemia has been associated with postoperative joint infections. The preoperative screening for anemia would reduce the number of post-operative joint infections." More resources can be found at the American Association of Blood Banks.

The purpose of this measure is to drive quality changes within perioperative anemia management. Testing algorithms may not be available in all practices. Those that do not have testing algorithms should use a different strategy to fulfill requirements of this measure.

RELEVANT FIELDS

- Date of service
- Date of birth
- ASA CPT code
- Anemia screen
- Anemia present

REPORTING CODES

AQI 68 Code	Definition
G9643	Elective Surgery

11A67	Patient was screened for anemia preoperatively AND documentation of one or more selected management strategies used prior to PACU discharge.
11A68	Negative preoperative anemia screening result.
11A69	Documentation of medical or patient reason(s) for not screening for anemia and/or using selected management strategies (e.g., patient refusal, contraindication, etc.).
11A70	No preoperative patient screen for anemia OR positive preoperative anemia screening result and no documentation of one or more selected management strategies used prior to PACU discharge.
11A80	Surgeon or other non-anesthesia professional clinician completed one or more of the management strategies without direction or assistance from the anesthesia professional.

AQI 73: Prevention of Arterial Line-Related Bloodstream Infections

MEASURE DESCRIPTION
Percentage of patients, regardless of age, who undergo placement of a peripheral intra-arterial catheter for whom the arterial line was inserted with all indicated elements of sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

The measure will consist of two performance rates:

> **AQI73a**: Percentage of patients, regardless of age, who undergo placement of a peripheral intra-arterial line in the brachial, radial, posterior tibial, or dorsalis pedis artery for whom the arterial line was inserted with all indicated elements of sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed
>
> **AQI73b**: Percentage of patients, regardless of age, who undergo placement of a peripheral intra-arterial line in the femoral or axillary artery for whom the arterial line was inserted with all indicated elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound technique is followed

NOTE: The overall measure score will be calculated as an average of the total cases of part A and part B.

NQS DOMAIN/MEANINGFUL MEASURES AREA
Patient Safety/Healthcare Associated Infections

MEASURE TYPE
Composite

HIGH PRIORITY STATUS
Yes

INVERSE MEASURE
No

INSTRUCTIONS
This measure consists of two performance rates: AQI73a and AQI73b. Each measure should be reported, as appropriate, for each time a patient undergoes a procedure undergo placement of a peripheral intra-arterial catheter for whom the arterial line was inserted. This measure has two sub-metrics which are used to calculate the total composite score. The overall measure score

will be calculated as an average of the total cases of part A and part B. 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 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.

RATIONALE

Arterial lines have been shown to be a significantly under-recognized source of catheter-related bloodstream infections. Though arterial catheter infection rates are similar to those associated with central venous catheters, the use of sterile barrier techniques for arterial line insertion is limited. Appropriate use of sterile techniques is essential to prevent costly and dangerous infections. Furthermore, the insertion of an arterial line in the femoral or axillary artery increases the likelihood of a blood stream infection in adults.

AQI73a: Brachial, Radial, Posterior Tibial, or Dorsalis Pedis Arterial Lines

DESCRIPTION

Percentage of patients, regardless of age, who undergo an arterial line insertion in the brachial, radial, posterior tibial, or dorsalis pedis artery for whom the arterial line was inserted with all indicated elements of sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

DENOMINATOR:

All patients, regardless of age, who undergo placement of an intra-arterial catheter in the brachial, radial, posterior tibial or dorsalis pedis artery

Denominator Criteria (Eligible Cases):
All patients, regardless of age
AND
Patient encounter during the reporting period (CPT):
36620
AND
Intra-arterial catheter placed in brachial, radial, posterior tibial, or dorsalis pedis artery: 11A71

DENOMINATOR EXCLUSIONS:

None

NUMERATOR:

Patients for whom intra-arterial catheter was inserted with all indicated elements of sterile barrier technique, hand hygiene, skin preparation (including >0.5% chlorhexidine with alcohol, unless

there is a contraindication to chlorhexidine), and, if ultrasound is used, sterile ultrasound techniques followed

Numerator Definitions:

- *Sterile Barrier Technique*: Includes all of the following elements: Cap AND mask AND sterile gloves AND sterile draping.
- *Sterile Ultrasound Techniques*: Require sterile gel and sterile probe covers

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:
All indicated elements of sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques followed. (**11A74**)

OR

Denominator Exception:
Documentation of medical reason(s) for not following all indicated elements of sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques during intra-arterial catheter insertion (e.g., An emergency surgical, therapeutic, or diagnostic procedure or an unanticipated worsening of the patient's clinical condition so that adherence would cause delay in arterial line insertion resulting in increased risk of harm to patient) (**11A75**)

OR

Performance Not Met:
All indicated elements of sterile barrier technique, hand hygiene, skin preparation, and if ultrasound is used, sterile ultrasound techniques not followed, reason not otherwise specified (**11A76**)

AQI73b: Femoral and Axillary Arterial Lines

DESCRIPTION:
Percentage of patients, regardless of age, who undergo an arterial line insertion in the femoral or axillary artery for whom the arterial line was inserted with all indicated elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed.

DENOMINATOR:
All patients, regardless of age, who undergo placement of an intra-arterial catheter in the femoral or axillary artery

Denominator Criteria (Eligible Cases):
All patients, regardless of age
AND

Patient encounter during the reporting period (CPT):
36620
AND
Intra-arterial catheter placed in femoral or axillary artery: 11A72

DENOMINATOR EXCLUSIONS:
None

NUMERATOR:
Patients for whom intra-arterial catheter was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation (including >0.5% chlorhexidine with alcohol, unless there is a contraindication to chlorhexidine), and, if ultrasound is used, sterile ultrasound techniques followed

Numerator Definitions:

- Maximal Sterile Barrier Technique – includes all of the following elements: Cap AND mask AND sterile gloves AND sterile gown AND sterile full body draping
- Sterile Ultrasound Techniques – Require sterile gel and sterile probe covers

Numerator Quality-Data Coding Options for Reporting Satisfactorily

Performance Met:
All elements of maximal sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques followed. (**11A77**)

OR

Denominator Exception:
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 intra-arterial catheter insertion (e.g., An emergency surgical, therapeutic, or diagnostic procedure or an unanticipated worsening of the patient's clinical condition so that adherence would cause delay in arterial line insertion resulting in increased risk of harm to patient). (**11A78**)

OR

Performance Not Met:
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. (**11A79**)

RELEVANT FIELDS

- Date of service
- Date of birth
- Type of Arterial line placed
- Sterile technique used

REPORTING CODES

AQI 68 Code	Definition
11A71	Intra-arterial catheter placed in brachial, radial, posterior tibial, or dorsalis pedis artery:
11A74	All indicated elements of sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques followed.
11A75	Documentation of medical reason(s) for not following all indicated elements of sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques during intra-arterial catheter insertion
11A76	All indicated elements of sterile barrier technique, hand hygiene, skin preparation, and if ultrasound is used, sterile ultrasound techniques not followed, reason not otherwise specified
11A72	Intra-arterial catheter placed in femoral or axillary artery
11A77	All elements of maximal sterile barrier technique, hand hygiene, skin preparation, and, if ultrasound is used, sterile ultrasound techniques followed.
11A78	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 intra-arterial catheter insertion
11A79	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.

MEDNAX 54: Labor Epidural Failure when Converting from Labor Analgesia to Cesarean Section Anesthesia

MEASURE TYPE: Outcome

HIGH PRIORITY STATUS: Yes

HIGH PRIORITY TYPE: Outcome

INVERSE MEASURE: Yes

RISK ADJUSTED: No

DESCRIPTION:
The percentage of patients who have pre-existing labor epidural or combined epidural/spinal technique who require either repeat procedural epidural or spinal, general anesthesia, or supplemental sedation as defined below for cesarean section.

INSTRUCTIONS:
This measure is to be reported each time a patient with an existing labor epidural or combined epidural/spinal requires delivery by cesarean section.

DENOMINATOR:
All parturients with an existing labor epidural who require delivery by cesarean section.

> **Denominator Criteria (Eligible Cases):**
> **Parturient**
> **AND**
> **Labor epidural in place (CPT code 01967)**
> **AND**
> **Requires delivery by cesarean section (CPT code +01968)**
>
> **DENOMINATOR EXCLUSION:**
> **ASA Physical Status = E** (Measure Response Code **1091**)

NUMERATOR:
Patients who have pre-existing labor epidural or epidural/spinal technique who require either general anesthesia, repeat procedural epidural and/or spinal technique, or supplemental sedation for cesarean section. For the purposes of this measure, “supplemental sedation” is defined as any dose of propofol, etomidate, or nitrous oxide.

Numerator Options:

Performance Met:

Patient who has pre-existing labor epidural or epidural/spinal technique who requires either general anesthetic, repeat procedural epidural and/or spinal technique, or supplemental sedation for cesarean section. (**MEDNAX 54A**)

OR

Performance Not Met:

Patients who has pre-existing labor epidural or epidural/spinal technique who **did not** require either general anesthesia, repeat procedural epidural and/or spinal technique, or supplemental sedation. (**MEDNAX 54B**)

RATIONALE:

The Royal College of Anaesthetists states that an acceptable rate of general anesthesia in a parturient receiving labor epidural analgesia should be no more than 3%. In a 2012 systematic review, Bauer et al. found that the percentage of all cesarean deliveries performed with general anesthesia with a pre-existing labor epidural was 5% (95% CI 3.5 to 6.5%). The requirement for a second anesthetic, including repeat epidural, spinal or general anesthetic was 7.7% (95% CI 5.0 to 10.5%) and overall, 10.7% (95% CI 4.2 to 17.3) of patients were given supplementation (intravenous, inhalational or not specified) for cesarean sections.

To assess current conversion of labor epidural to either spinal or general anesthesia for cesarean section, MEDNAX conducted a random audit of 100 cesarean following labor epidural cases among all MEDNAX obstetrical anesthesia group practices participating in the MEDNAX QCDR. These cases were performed during the first 6 months of 2018. In 17% of these cases, anesthesiologists converted the labor epidural to either spinal or general anesthesia in performing the cesarean section.

Based on published literature, one notable risk factor for conversion failure was being a non-obstetrical (general) anesthesiologist. They posited that obstetrical anesthesiologists may be more aware of the quality of labor analgesia and more likely to replace dysfunctional catheters or perform manipulations of the existing catheter or performing another neuraxial technique to avoid general anesthesia. Campbell reported an 84.6% success rate of converting labor epidurals by withdrawing the catheter 1cm before further drug administration. Riley reported that obstetrical anesthesiologists had more success than general anesthesiologists in conversion. This metric could identify performance gaps and the need for dedicated obstetrical anesthesia staff rather than cross coverage by general anesthesiologists.

RELEVANT FIELDS

- ASA CPT code
- Labor Epidural converted to C/S
- Failed Labor Epidural

REPORTING CODES

Response Codes	Definition
1091	ASA Physical Status = E
Mednax 54A	Labor epidural FAILED
Mednax 54B	Labor epidural DID NOT fail

QID 404: Anesthesiology Smoking Abstinence

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

AND

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

RELEVANT FIELDS

- Date of service
- Date of birth
- ASA CPT code
- Smoker status

- Elective case
- Received cessation instructions
- Smoked on day of procedure

REPORTING CODES

QID 404 Code	Definition
G9642	Current smoker (e.g. cigarette, cigar, pipe, e-cigarette or marijuana)
G9643	Elective surgery
G9497	Received instruction from the anesthesiologist or proxy prior to the day of surgery to abstain from smoking on the day of surgery
G9644	Patients who abstained from smoking prior to anesthesia on the day of surgery or procedure
G9645	Patients who did not abstain from smoking prior to anesthesia on the day of surgery or procedure

QID 424: Perioperative Temperature Management

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 30minutes 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.

RELEVANT FIELDS

- Date of procedure
- Date of birth
- ASA CPT code
- Total anesthesia time
- Primary anesthesia used
- Postop patient temperature

REPORTING CODES

QID 424 Code	Definition
4255F	Anesthesia of 60 minutes duration or longer
G9654	Monitored Anesthesia Care (MAC)
G9770	Peripheral Nerve Block (PNB)

G9771	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
G9772	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 30minutes immediately before or the 15 minutes immediately after anesthesia end time (e.g., Emergency cases, Intentional hypothermia, etc.)
G9773	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

QID 430: Prevention of Post-Operative Nausea and Vomiting (PONV) – Combination Therapy

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.

RELEVANT FIELDS

- Date of procedure
- Date of birth
- ASA CPT code
- Received inhalational agent
- ≥3 PONV risk factors
- Received ≥2 agents in different classes

REPORTING CODES

QID 430 Code	Definition
4554F	Patient received inhalational anesthetic agent
4556F	Patient exhibits 3 or more risk factors for post-operative nausea and vomiting
G9775	Patient received at least 2 prophylactic pharmacologic anti- emetic agents of different classes preoperatively and/or intraoperatively
G9776	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)
G9777	Performance Not Met: Patient did not receive at least 2 prophylactic pharmacologic anti-emetic agents of different classes preoperatively and/or intraoperatively

QID 477: Multimodal Pain Management

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of patients, aged 18 years and older, undergoing selected surgical procedures that were managed with multimodal pain medicine

INSTRUCTIONS:
This measure is to be reported each time a patient undergoes a selected surgical procedure during the reporting period. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible anesthesia providers and clinicians who provide denominator-eligible services 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:
Patients, aged 18 years and older, who undergo selected surgical procedures

> ***DENOMINATOR NOTE*:** Selected surgical procedures include both elective and urgent open and laparoscopic intra-abdominal, spinal, pelvic, thoracic, breast, joint, head, neck, orthopedic and fracture repair surgeries.
>
> **Denominator Criteria (Eligible Cases):**
> **Patients aged 18 years and older on date of encounter**
> **AND**
> **Patient procedures during reporting period (CPT):**
> 00102, 00120, 00160, 00162, 00172, 00174, 00190, 00222, 00300, 00320, 00402, 00404, 00406, 00450, 00470, 00472, 00500, 00528, 00529, 00539, 00540, 00541, 00542, 00546, 00548, 00600, 00620, 00625, 00626, 00630, 00670, 00700, 00730, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00797, 00800, 00820, 00830,

00832, 00840, 00844, 00846, 00848, 00860, 00862, 00864, 00865, 00866, 00870, 00872, 00873, 00880, 00902, 00906, 00910, 00912, 00914, 00916, 00918, 00920, 00940, 00942, 00948, 01120, 01160, 01170, 01173, 01210, 01214, 01215, 01220, 01230, 01360, 01392, 01400, 01402, 01480, 01482, 01484, 01486, 01630, 01634, 01636, 01638, 01740, 01742, 01744, 01760, 01830, 01832, 01961

DENOMINATOR EXCLUSION:

Emergent cases: M1142

NUMERATOR:

Patients for whom multimodal pain management is administered in the perioperative period from 6 hours prior to anesthesia start time until discharged from the post-anesthesia care unit

Definition:

Multimodal pain management is defined as the use of two or more drugs and/or interventions, NOT including systemic opioids, that act by different mechanisms for providing analgesia. These drugs and/or interventions can be administered via the same route or by different routes. Opioids may be administered for pain relief when indicated but will not count toward this measure.

NUMERATOR NOTE: Documentation of qualifying medications or interventions provided from six hours prior to anesthesia start time through post-anesthesia care unit discharge count toward meeting the numerator.

Numerator Options:

Performance Met:

Multimodal pain management was used (**G2148**)

OR

Denominator Exception:

Documentation of medical reason(s) for not using multimodal pain management (e.g., allergy to multiple classes of analgesics, intubated patient, hepatic failure, patient reports no pain during PACU stay, other medical reason(s)) (**G2149**)

OR

Performance Not Met:

Multimodal pain management was not used (**G2150**)

RATIONALE:

Besides providing anesthesia care in the operating room, anesthesiologists are dedicated to providing the best perioperative pain management in order to improve patients' function and facilitate rehabilitation after surgery. In the past, pain management was limited to the use of opioids (also called narcotics). Opioids provide analgesia primarily through a unitary mechanism, and just adding more opioids does not usually lead to better pain control or improve

outcomes. In fact, opioids are responsible for a host of side effects that can be a threat to life, and increasing rates of complications after surgery can be attributed to the overuse and abuse of opioids. In 2012, the American Society of Anesthesiologists (ASA) published its guidelines for acute pain management in the perioperative setting (1), and ASA along with the American Society of Regional Anesthesia and Pain Medicine (ASRA) and American Pain Society collaborated on the 2016 clinical practice guidelines for the management of postoperative pain (2). These documents endorse the routine use of "multimodal analgesia" which means employing multiple classes of pain medications or therapies, working with different mechanisms of action, in the treatment of acute pain instead of relying on opioids alone.

While opioids may continue to be important pain medications, they must be combined with other classes of medications known to prevent and help relieve postoperative pain unless contraindicated. The list includes but is not limited to:

- **Non-steroidal anti-inflammatory drugs (NSAIDs):** Examples include ibuprofen, diclofenac, ketorolac, celecoxib, nabumetone. NSAIDs act on the prostaglandin system peripherally and work to decrease inflammation.
- **NMDA antagonists:** When administered in low dose, ketamine, magnesium, and other NMDA antagonists act on the N-methyl-D-aspartate receptors in the central nerve system to decrease acute pain and hyperalgesia.
- **Acetaminophen:** Acetaminophen acts on central prostaglandin synthesis and provides pain relief through multiple mechanisms.
- **Gabapentinoids:** Examples include gabapentin and pregabalin. These medications are membrane stabilizers that essentially decrease nerve firing.
- **Regional block:** The ASA and ASRA also strongly recommend the use of target-specific local anesthetic applications in the form of regional analgesic techniques as part of the multimodal analgesic protocol whenever indicated.
- **Steroids:** Dexamathasone during surgery has been shown to decrease pain and opioid requirements.
- **Local anesthetics:** Injection of local anesthetic in or around the surgical site by the surgeon is an example. Systemic lidocaine administered intravenously represents an alternative to regional analgesic techniques.

RELEVANT FIELDS

- Date of procedure
- Date of birth
- ASA CPT code
- Elective case
- Multimodal pain management used

REPORTING CODES

QID 477 Code	Definition

M1142	Emergent case
G2148	Multimodal pain management was used
G2149	Documentation of medical reason(s) for not using multimodal pain management (e.g., allergy to multiple classes of analgesics, intubated patient, hepatic failure, patient reports no pain during PACU stay, other medical reason(s))
G2150	Multimodal pain management was not used

V. Interpreting Payment Adjustments with New or Multiple TIN/NPI Combinations

Scenario	Payment Adjustment
Clinician has a 2023 Final Score under TIN A. Clinician continues to bill under TIN A in the 2025 payment year.	Clinician will receive a payment adjustment for covered professional services billed in 2025 under their TIN A/NPI combination based on 2023 Final Score attributed to that TIN A/NPI combination.
Clinician has a single 2023 Final Score, received at TIN A. Clinician bills under TIN B in the 2025 payment year.	Clinician will receive a payment adjustment for covered professional services billed in 2025 under their TIN B/NPI combination based on 2023 Final Score attributed to their TIN A/NPI combination.
Clinician has a 2023 Final Score under TIN A. Clinician has a 2023 Final Score under TIN B. Clinician bills under TIN C in the 2025 payment year.	Clinician will receive a payment adjustment for covered professional services billed in 2025 under their TIN C/NPI combination based on their higher 2023 Final Score – either attributed to their TIN A/NPI combination or TIN B/NPI combination.
Clinician has a 2023 Final Score under TIN A. Clinician has a 2023 Final Score under TIN B. Clinician bills under TIN A and TIN B in the 2025 payment year.	Clinician will receive a payment adjustment for covered professional services billed in 2025 under their TIN A/NPI combination based on 2023 Final Score attributed to that TIN A/NPI combination. Clinician will receive a payment adjustment for covered professional services under their TIN B/NPI combination based on 2023 Final Score attributed to that TIN B/NPI combination.

VI. Disclaimer and Copyright

Disclaimer
Participation in Graphium Health's MACRA Ready™ service does not guarantee satisfactory participation in CMS Merit-based Incentive Payment System (MIPS). Successful submission to CMS is contingent upon each individual eligible provider (EP) and/or group meeting the MIPS program requirements and the timeliness, quality, and accuracy of the data they provide for reporting.

The information provided is not to be construed as practice management or legal advice. Every reasonable effort has been made to ensure the accuracy of the information presented at the time of posting, but Graphium Health does not warrant or guarantee that the information presented is exhaustive or error-free. Graphium Health further disclaims all liability for loss or damage incurred by third parties arising from the use of the information. Please consult your legal advisor or other qualified professional for guidance and information specific to your situation.

Copyright

APPENDIX A: 2023 MACRA Ready Simple Form

GRAPHIUM HEALTH™

2023 Simple Collector

Name
DoB Gndr
MRN
EN
(PATIENT STICKER)

CASE INFORMATION

Facility	(PRINT LEGIBLY)			
Date	MM	DD	YY	
Anes Start	H	H	M	M
Anes End	H	H	M	M

Case type ○ Stnd ○ OB

Patient type ○ Amb ○ Inpt ○ ED

Physical status ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ☐ E

○ Gen ○ Regional ○ Spinal
○ MAC ○ Epidural ○ LABOR Epidural

PROVIDER INFORMATION

Surg	(PRINT LEGIBLY)
Anes #1	(PRINT LEGIBLY)
Anes #2	(PRINT LEGIBLY)
Anes #3	(PRINT LEGIBLY)
Anes #4	(PRINT LEGIBLY)
Anes #5	(PRINT LEGIBLY)
Anes #6	(PRINT LEGIBLY)

ASA CPT CODE

☐☐☐☐☐

(If available or to be submitted later.)

COMMENTS

FORM COMPLETION

SIGNATURE DATE / TIME

(QID 424 will be calculated based on other fields - Anes Start/End time, Primary Anesthetic Type, and Temperature < 35.5˚C outcome.)

MACRA MEASURES

AQI 48
Send Graphium satisfaction survey** ○ Yes ○ Pt Declines ○ No
Mobile** ( ) –
Email

QID 404
Patient is a smoker ○ Yes ○ No
└ *(if Yes)* – Rec'd cessation guidance ○ Yes ○ No
└ *(if Yes)* — Smoked on DoS ○ Yes ○ No

AQI 68
Pre-existing OSA diagnosed ○ Yes ○ No
└ *(if No)* — OSA screen performed ○ Yes ○ N-RS ○ N-RU
└ *(if Yes)* — OSA screen result ○ Pos ○ Neg
└ *(if OSA+)* — ≥ 2 Mitigations used ○ Yes ○ N-RS ○ N-RU

STOPBANG screen for OSA: Plus 1 for each. OSA screen pos if score ≥ 5.

(S)nores	(B)MI > 35
(T)ired	(A)ge > 50yo
(O)bserved apnea	(N)eck size > 17"M or 16"F
(P)ressure: HTN	(G)ender = Male

ABG 43
Non-OR Setting (eg Rad, ECT, IR, Endo) ○ Yes ○ No
└ *(if Yes)* — EtCO2 montoring used ○ Yes ○ No

ABG 42
Difficult airway and GETA planned ○ Yes ○ No
└ *(if Yes)* — Planned equip & 2nd Provider present ○ Yes ○ No

Q 477
Multimodal pain management ○ Yes ○ N-RS ○ N-RU

Q 430 / ABG 44
Inhal agent ○ Yes ○ No
├ *(if Yes)* — Low flow maintenance ○ Yes ○ N-RS ○ N-RU
├ *(if Yes)* — ≥ 3 RFs for PONV ○ Yes ○ No
└ *(if Yes)* – Combo therapy used ○ Yes ○ N-RS ○ N-RU

AQI 73 Arterial Line
☐ Radial ☐ Brachial ☐ Dorsalis Pedis ☐ Femoral
☐ Ulnar ☐ Posterior Tibial ☐ Axillary
Defined sterile technique used ○ Yes ○ N-RS ○ N-RU

SPECIALTY SURGERY

ABG 41 / AQI 56 / AQI 72
☐ 1˚ total knee arthroplasty * † ☐ Shoulder arthroplasty * †
☐ Hip arthroplasty † ☐ Shoulder arthroscopy *
* Neuraxial / regional blk or LIA ○ Yes ○ N-RS ○ N-RU
† Anemia screen performed ○ Yes ○ N-RS ○ N-RU
└ *(if Yes)* — Anemia screen result ○ Hgb <13 ○ Hgb ≥13
≥1 Defined anemia mngmnt strategy ○ Yes ○ N-RS ○ N-RU

Anemia Management strategies that may apply:

Antifibinolytic	Cell savage	Iron supplements
Tourniquet	Evidence-based algorithm	Epoetin alpha

LIA = Local infiltration analgesia (by anesthesia provider)

MD 54
Labor Epid converted to C/S ○ Yes ○ No
└ *(if Yes)* — Labor epidural failed ○ Yes ○ No

ABG 40
C-Section performed ○ Yes ○ No
└ *(if Yes)* — Phenylephrine given ○ Yes ○ N-RS ○ N-RU

AQI 65
Cardiopulmonary Bypass Used ○ Yes ○ No
└ *(if Yes)* — Temp <37.0˚C w/ CPB ○ Yes ○ N-RS ○ N-RU

QUALITY MEASURES

Post-op disposition
○ PACU/Stepdown ○ ICU

Post-op pain
0 1 2 3 4 5
6 7 8 9 10 Unk

Current meds doc ○ Yes ○ N-RS ○ N-RU
Safety checklist ○ Yes ○ No
Handoff used ○ Yes ○ N-RS ○ N-RU

Cent Line ☐ Internal Jugular ☐ Subclavian ☐ Femoral

Sterile tech used ○ Yes ○ N-RS ○ N-RU
Ultrasound used ○ Yes ○ No

OUTCOMES

☐ Cardiac arrest (unplanned)
☐ Myocardial ischemia
☐ Myocardial infarction
☐ Dysrythmia requiring intervention
☐ Unexpected death
☐ Uncontrolled HTN
☐ Stroke, CVA, or coma
☐ Vasc injury (arterial/ptx)

☐ Pneumo (related to anesthesia)
☐ Aspiration

☐ Failed regional anesthetic
☐ Peripheral nerve injury post regional
☐ Wet tap
☐ Systemic local anes toxicity

☐ Temperature <95.9˚F or <35.5˚C
☐ Reintubation (planned trial extub)
☐ Reintubation (no trial extub)
☐ Inadequate reversal
☐ Intractable N/V
☐ Unexpctd post-op vent
☐ Prolonged PACU stay

☐ Medication administration error
☐ Adverse transfusion reaction
☐ Anaphylaxis
☐ Opioid reversal required
☐ Wrong site surgery
☐ Wrong patient
☐ Wrong surgical procedure
☐ Unplanned hospital admission
☐ Unplanned ICU admission

☐ Dental trauma
☐ Visual loss
☐ MH
☐ Awareness under GA
☐ Unable to intubate
☐ Airway fire in OR
☐ Corneal abrasion
☐ Equipment malfunction
☐ Fall in OR
☐ Other

** Message and data rates may apply. Frequency varies. Text HELP for help or STOP to opt-out. Terms at: https://graphiumhealth.com/sms and Privacy policy at: https://graphiumhealth.com/privacy

APPENDIX B: 2023 MACRA Ready Plus Form

GRAPHIUM HEALTH™

2023 Plus Collector

Name
DoB Gndr
MRN
EN

{PATIENT STICKER}

CASE INFORMATION ○ Stnd ○ OB

Fac	{PRINT LEGIBLY}	Date	
Loc		1st Case ☐	Schd Start
Anes Start		Anes Rdy	
Surg Start		Surg End	
PACU/ICU		Anes End	

○ Labor Only ○ OR Only ○ Labor to OR

Labor Epidural Start		Labor Epidural End		
○ Amb ○ Inpt ○ ED	○ 1	○ 2	○ 3	☐ E
	○ 4	○ 5	○ 6	

○ Gen ○ Regional ○ Spinal
○ MAC ○ Epidural ○ LABOR Epidural

PROVIDER INFORMATION

Surg	{PRINT LEGIBLY}
Anes #1	{PRINT LEGIBLY}
Anes #2	{PRINT LEGIBLY}
Anes #3	{PRINT LEGIBLY}
Anes #4	{PRINT LEGIBLY}
Anes #5	{PRINT LEGIBLY}

ASA CPT CODE

(If available or to be submitted later.)

FIRST CASE DELAY:

☐ Patient Late ☐ Anes Not Available
☐ NPO Violation ☐ Surgeon Not Available
☐ Equipmnt Not Available ☐ Abnormal Lab Values
☐ Interprtr Not Available ☐ Delay for Emergency
☐ RN Not Available ☐ Other

CASE CANCELLED

○ Before Ind ○ After Ind

☐ No OR Time ☐ Patient Decision
☐ Equipment Failure ☐ Patient No Show
☐ ICU Bed Not Available ☐ NPO Violation
☐ Inpt Bed Not Available ☐ Change in Surgical Plan
☐ Abnormal Labs ☐ Other

(QID 424 will be calculated based on other fields - Anes Start/End time, Primary Anesthetic Type, and Temperature < 35.5˚C outcome.)

MACRA MEASURES

AQI 48
Send Graphium satisfaction survey** ○ Yes ○ Pt Declines ○ No
Mobile** ( ) -
Email

QID 404
Patient is a smoker ○ Yes ○ No
└ *(if Yes)* – Rec'd cessation guidance ○ Yes ○ No
└ *(if Yes)* — Smoked on DoS ○ Yes ○ No

AQI 68
Pre-existing OSA diagnosed ○ Yes ○ No
└ *(if No)* — OSA screen performed ○ Yes ○ N-RS ○ N-RU
└ *(if Yes)* — OSA screen result ○ Pos ○ Neg
└ *(if OSA+)* — ≥ 2 Mitigations used ○ Yes ○ N-RS ○ N-RU

STOPBANG screen for OSA: Plus 1 for each. OSA screen pos if score ≥ 5.

(S)nores	(B)MI > 35
(T)ired	(A)ge > 50yo
(O)bserved apnea	(N)eck size > 17"M or 16"F
(P)ressure: HTN	(G)ender = Male

ABG 43
Non-OR Setting (eg Rad, ECT, IR, Endo) ○ Yes ○ No
└ *(if Yes)* — EtCO2 montoring used ○ Yes ○ No

ABG 42
Difficult airway and GETA planned ○ Yes ○ No
└ *(if Yes)* — Planned equip & 2nd Provider present ○ Yes ○ No

Q 477
Multimodal pain management ○ Yes ○ N-RS ○ N-RU

Q 430 / ABG 44
Inhal agent ○ Yes ○ No
├ *(if Yes)* — Low flow maintenance ○ Yes ○ N-RS ○ N-RU
├ *(if Yes)* — ≥ 3 RFs for PONV ○ Yes ○ No
└ *(if Yes)* – Combo therapy used ○ Yes ○ N-RS ○ N-RU

AQI 73 Arterial Line
☐ Radial ☐ Brachial ☐ Dorsalis Pedis ☐ Femoral
☐ Ulnar ☐ Posterior Tibial ☐ Axillary
Defined sterile technique used ○ Yes ○ N-RS ○ N-RU

SPECIALTY SURGERY

AQI 72
☐ 1˚ total knee arthroplasty * † ☐ Shoulder arthroplasty * †
☐ Hip arthroplasty † ☐ Shoulder arthroscopy *

ABG 41 / AQI 56 / AQI 72
* Neuraxial / regional blk or LIA ○ Yes ○ N-RS ○ N-RU
† Anemia screen performed ○ Yes ○ N-RS ○ N-RU
└ *(if Yes)* — Anemia screen result ○ Hgb <13 ○ Hgb ≥13
≥1 Defined anemia mngmnt strategy ○ Yes ○ N-RS ○ N-RU

Anemia management strategies that may apply:

Antifibinolytic	Cell savage	Iron supplements
Tourniquet	Evidence-based algorithm	Epoetin alpha

LIA = Local infiltration analgesia (by anesthesia provider)

MD 54
Labor Epid converted to C/S ○ Yes ○ No
└ *(if Yes)* — Labor epidural failed ○ Yes ○ No

ABG 40
C-Section performed ○ Yes ○ No
└ *(if Yes)* — Phenylephrine given ○ Yes ○ N-RS ○ N-RU

AQI 65
Cardiopulmonary bypass used ○ Yes ○ No
└ *(if Yes)* — Temp <37.0˚C w/ CPB ○ Yes ○ N-RS ○ N-RU

COMMENTS

QUALITY MEASURES

Post-op disposition
○ PACU/Stepdown ○ ICU

Post-op pain
0 1 2 3 4 5
6 7 8 9 10 Unk

Current meds doc ○ Yes ○ N-RS ○ N-RU
Safety checklist ○ Yes ○ No
Handoff used ○ Yes ○ N-RS ○ N-RU

Cent Line ☐ Internal Jugular ☐ Subclavian ☐ Femoral
Sterile tech used ○ Yes ○ N-RS ○ N-RU
Ultrasound used ○ Yes ○ No

OUTCOMES

☐ Cardiac arrest (unplanned)
☐ Myocardial ischemia
☐ Myocardial infarction
☐ Dysrythmia requiring intervention
☐ Unexpected death
☐ Uncontrolled HTN
☐ Stroke, CVA, or coma
☐ Vasc injury (arterial/ptx)

☐ Pneumo (related to anesthesia)
☐ Aspiration

☐ Failed regional anesthetic
☐ Peripheral nerve injury post regional
☐ Wet tap
☐ Systemic local anes toxicity

☐ Temperature <95.9˚F or <35.5˚C
☐ Reintubation (planned trial extub)
☐ Reintubation (no trial extub)
☐ Inadequate reversal
☐ Intractable N/V
☐ Unexpctd post-op vent
☐ Prolonged PACU stay

☐ Medication administration error
☐ Adverse transfusion reaction
☐ Anaphylaxis
☐ Opioid reversal required
☐ Wrong site surgery
☐ Wrong patient
☐ Wrong surgical procedure
☐ Unplanned hospital admission
☐ Unplanned ICU admission

☐ Dental trauma
☐ Visual loss
☐ MH
☐ Awareness under GA
☐ Unable to intubate
☐ Airway fire in OR
☐ Corneal abrasion
☐ Equipment malfunction
☐ Fall in OR
☐ Other

** Message and data rates may apply. Frequency varies. Text HELP for help or STOP to opt-out. Terms at: https://graphiumhealth.com/sms and Privacy policy at: https://graphiumhealth.com/privacy

APPENDIX C: 2023 MACRA Quality Measure Definitions - Cheat Sheet

MACRA MEASURE DEFINITIONS

AQI 48 Patient-Reported Experience with Anesthesia

Percentage of patients aged 18 and older, who were surveyed on their patient experience and satisfaction with anesthesia care and who reported a positive experience. Survey needs to be sent within 30 days of anesthetic. Performance rate will be a function of percentage of surveys sent plus positive response rate.

Send Graphium assessment/satisfaction survey:

Graphium will email and/or text a single survey covering anesthesia satisfaction.

Yes - Graphium is approved to send and patient agrees to receive electronic satisfaction and post-discharge follow-up survey.

Pt Declines - Patients who are non-verbal, unable to be surveyed due to a language/medical reason, or *who decline to be surveyed.*

No - Graphium is not authorized to send a satisfaction and post-discharge follow-up survey. To be used when either surveys are not desired OR another survey service used.

QID 404 Anesthesiology Smoking Abstinence

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

Patient is a smoker: Patient identifies as a smoker (e.g. cigarette, cigar, pipe, e-cigarette or marijuana)

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

Smoked on day of surgery: Patients who did NOT abstain from smoking prior to anesthesia on the day of surgery or procedure.

AQI 68 Obstructive Sleep Apnea: Mitigation Strategies

Percentage of patients aged 18 years or older, who undergo an elective procedure requiring anesthesia services who are screened for OSA AND, if positive, for whom two or more selected mitigation strategies were used prior to PACU discharge.

Pre-existing OSA diagnosed: Patient has an existing diagnosis of OSA

OSA screen performed: Documentation if OSA screen performed, and if not, then explanation of why not (i.e. patient intubated, etc)

OSA screen result: Positive OSA screen if STOPBANG ≥ 5

≥ 2 Mitigations used: Patients with OSA have documentation that two or more mitigation strategies were used prior to PACU discharge.

ABG 43 Use of Capnography for Non-Operating Room Anesthesia

Percentage of patients receiving anesthesia in a non-operating room setting who have end-tidal carbon dioxide (ETCO2) monitored using capnography - documented in chart as either as a "+" or a numerical value.

Non-OR setting: Procedure rooms where anesthesia machines and standard monitors are made available on an "as needed" basis are not considered operating rooms.

ABG 42 Known or Suspected Difficult Airway Mitigation Strategies

Percentage of patients with a known or suspected difficult airway who undergo a planned GETA that have both a 2nd *provider* present AND have difficult airway equipment in the room prior to the induction.

Provider: Any OR staff (eg. physician, CRNA, RN, resident, or anesthesia tech) who is soley available to assist with the airway.

QID 477 Multimodal Pain Management

Percentage of patients, regardless of age, undergoing selected elective surgical procedures that were managed with multimodal pain medicine - defined as the use of ≥2 drugs and/or interventions, NOT including systemic opioids, that act by different mechanisms for providing analgesia. Opioids may be administered for pain relief when indicated but will not count towards this measure.

ABG 44 Low Flow Inhalational General Anesthesia

Percentage of patients aged 18 years or older, who undergo an elective procedure lasting 30 minutes or longer requiring inhalational general anesthesia who during the maintenance phase of the anesthetic have a total fresh gas flow less than or equal to 1 L/min (less than or equal to 2 L/min for Sevoflurane).

QID 424 Perioperative Temperature Management

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.

QID 430 Prevention of Post-Operative Nausea and Vomiting (PONV)

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 and/or intraoperatively.

≥ 3 risk factors for PONV:
- Female gender
- History of motion sickness
- History of PONV
- Non-smoker
- Intended administration of opioids for post-op analgesia

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

AQI73: Prevention of Arterial Line-Related Bloodstream Infections

Percentage of patients, regardless of age, who undergo placement of a peripheral intra-arterial catheter for whom the arterial line was inserted with all indicated elements of sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed.

Defined sterile technique used = Cap, mask, sterile gloves

plus, if Peripheral = Sterile draping

plus, if Central = Sterile gown and sterile full body draping

plus, if U/S = Sterile gel and sterile probe covers

SPECIALTY SURGERY MACRA MEASURES

AQI 56 Use of Neuraxial Techniques and/or Peripheral Nerve Blocks for Total Knee Arthroplasty (TKA)

Percentage of patients, regardless of age, that undergo **primary** total knee arthroplasty for whom neuraxial anesthesia and/or a peripheral nerve block is performed. Revision of total knee arthroplasty or prosthesis removal do not qualify.

ABG 41 Upper Extremity Nerve Blockade in Shoulder Surgery

Percentage of patients who undergo shoulder arthroscopy or shoulder arthroplasty who have an upper extremity nerve blockade performed before or immediately after the procedure.

Upper extremity block: Interscalene, Sub/Interclavicular, Suprascapular, or Axillary

AQI72: Perioperative Anemia Management

Percentage of patients, aged 18 years and older, undergoing elective total joint arthroplasty who were screened for anemia preoperatively AND, if positive, have documentation that one or more of the following management strategies were used prior to PACU discharge.

MD 54 Labor Epidural Failure when Converting from Labor Analgesia to Cesarean Section Anesthesia

The percentage of patients who have pre-existing labor epidural or combined epidural/spinal technique who require either repeat procedural epidural or spinal, general anesthesia, or supplemental sedation as defined below for cesarean section. For the purposes of this measure, supplemental sedation is defined as any dose of propofol, etomidate, or nitrous oxide.

ABG 40 Hypotension Prevention After Spinal Placement for Elective Cesarean Section

Percentage of patients, who present for elective Caesarean section under spinal anesthesia who have phenylephrine infusions started prophylactically to prevent hypotension.

AQI65: Avoidance of Cerebral Hyperthermia for Procedures Involving CPB

Percentage of patients, aged 18 years and older, undergoing a procedure using cardiopulmonary bypass who did not have a documented intraoperative pulmonary artery, oropharyngeal, or nasopharyngeal temperature ≥37.0 degrees Celsius during the period of cardiopulmonary bypass.