Anesthesia Quality Institute®
American Society of **Anesthesiologists®**

2019 NACOR USER GUIDE
A step-by-step guide to submitting data to the Anesthesia Quality Institute's National Anesthesia Clinical Outcomes Registry (NACOR).

NACOR Basic
NACOR Benchmarking
NACOR Standard Quality Reporting

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Introduction

The Anesthesia Quality Institute (AQI) was established by the American Society of Anesthesiologists in October 2008 to facilitate practice-based quality management through education and quality data feedback.

Home to the National Anesthesia Clinical Outcomes Registry (NACOR), the largest anesthesia registry in the country, AQI's *vision* is "to be the primary source of information for quality improvement in the clinical practice of anesthesiology. Through education and quality feedback, AQI will help to improve the quality care of patients, lower anesthesia mortality and lower anesthesia incidents."

AQI is listed as a Patient Safety Organization (PSO) by the Department of Health & Human Services (HHS), and ASA is a member of the National Quality Forum (NQF). AQI's NACOR is a designated Qualified Registry (QR) and Qualified Clinical Data Registry (QCDR) for the Centers for Medicare & Medicaid Services (CMS) Quality Payment Program (QPP). With millions of cases and growing, AQI's clinical data informs treatment choices and helps control treatment costs.

NACOR Basic

NACOR Basic is intended for all anesthesia providers in all practice settings and ***does not include additional quality reporting options***. The registry provides:

- Interactive analytical reports
- Ability to analyze data across various dimensions
- Local benchmarks

NACOR participants have continuous online access to NACOR reports, which they can use to identify gaps in specific quality measures. Performance tracking reports capture trends over time and help measure improvements in care. NACOR Basic provides access to local benchmarking reports.

Participants also can use NACOR to identify outliers and review performance results across their patient populations to help address clinical gaps and better inform local practice improvement interventions. Data can be used to review performance and quickly determine the impact of an improvement intervention. Results are presented graphically to identify trends in performance.

Participants range from pen-and-paper anesthesiology practices to the most technologically advanced academic centers. An Anesthesia Information Management System (AIMS) or electronic health record (EHR) is not required to participate. Participation requires close collaboration between the anesthesia practice, its providers and health care technology vendors.

Benefits
- Provides comprehensive MIPS reporting and supports your local quality improvement activities
- Includes specialty-specific reporting measures, providing broader options that may be more meaningful to your practice

NACOR Benchmarking

NACOR Benchmarking, which is intended for all anesthesia providers in all practice settings. Ideal for national benchmarks and quality improvement initiatives, the registry provides:

- All features of NACOR Basic, plus national performance indicators
- Custom continuous performance monitors
- Ability to measure performance beyond local facility
- Performance gap analysis and patient outlier identification
- National comparative analytic reports
- Peer-to-peer benchmarks

Performance
Participants have continuous online access to NACOR reports, which they can use to identify gaps in specific quality measures and focus efforts to close those gaps. Performance tracking reports capture trends over time and help measure improvements in quality care. NACOR also provides access to national benchmarking reports.

Identify Outliers
NACOR participants also can improve care by reviewing performance results across their patient population, which helps address clinical gaps in a timely manner. Consider interventions that can lead to sustainable practice improvement for your aggregate performance, which can help reduce outliers in the future.

Improvement
NACOR identifies possible interventions based on clinical quality gaps found through calculating selected data. Data can be used to review performance and quickly determine the impact of an improvement intervention. Results are presented graphically to identify trends in performance.

Participants range from pen-and-paper anesthesiology practices to the most technologically advanced academic centers. An AIMS system or electronic health record (EHR) is not required to participate.

Participation requires close collaboration between the anesthesia practice, its providers and healthcare technology vendors. Roles are defined as follows:

Key roles for individual anesthesia practices, hospitals and providers

- Provide data to NACOR
- Use reports to improve patient care to meet various local, state and federal regulatory requirements

Key roles for anesthesia information technology vendors
Facilitate NACOR reporting with practices; vendors that provide formatted data for NACOR will be listed as AQI Vendors.

Intended for all clinicians in all practice settings, NACOR Benchmarking provides:

- All features of NACOR Basic plus national performance indicators
- Custom performance monitors
- Ability to measure performance beyond local facility

Features and reports include:

- Billing and administrative data
- Comorbidities and outcomes
- National peer-to-peer benchmarking
- National comparative analytic reports
- Performance gap analysis
- Patient outlier identification

Reporting Clinical Outcomes/Adverse Events (excluding CMS measure data)

If a practice is reporting clinical outcomes to NACOR, a blank outcome field is interpreted in the database as "no adverse event." Ideally, the most accurate capture is to record 'yes' or 'no' for an adverse event for every case. We recognize many practices are capturing outcomes on paper or some other manual system where clicking a box 'yes' or 'no' for every case may be resource intensive and interrupt workflow.

There are currently 103 clinical outcomes/adverse events available to be reported to NACOR. The complete list of outcomes can be found on the AQI website but examples include:

- Airway trauma
- Anaphylaxis
- Arrhythmia
- Cardiac Arrest
- Delirium

The following sample assumes that only 9 outcomes are tracked and maintained by the data submitter. Outcomes 18 & 20-27 are reported and will be benchmarked for the practice. Other outcomes will not be as they are not reported. Each practice submitting outcomes will be required to report on a particular outcome (either occurred or not occurred) to receive benchmarks for that outcome.

Following is an example of how to report a clinical outcome in the data file:

```
<OutcomeSet>

    <Outcome>

      <OutcomeID>18</OutcomeID>

      <OutcomeOccurred>true</OutcomeOccurred>

      <OutcomeTimeStamp>2019-01-01T07:00:00</OutcomeTimeStamp>

      <OutcomeSeverity>Mild Harm</OutcomeSeverity>

      <OutcomeTimeFrame>PACU</OutcomeTimeFrame>

    </Outcome>

    <Outcome>

      <OutcomeID>20</OutcomeID>

      <OutcomeOccurred>false</OutcomeOccurred>

    </Outcome>

    <Outcome>

      <OutcomeID>21</OutcomeID>

      <OutcomeOccurred>false</OutcomeOccurred>

    </Outcome>

    <Outcome>

      <OutcomeID>22</OutcomeID>

      <OutcomeOccurred>false</OutcomeOccurred>

    </Outcome>

    <Outcome>

      <OutcomeID>23</OutcomeID>
```

```
        <OutcomeOccurred>false</OutcomeOccurred>

      </Outcome>

      <Outcome>

        <OutcomeID>24</OutcomeID>

        <OutcomeOccurred>false</OutcomeOccurred>

      </Outcome>

      <Outcome>

        <OutcomeID>25</OutcomeID>

        <OutcomeOccurred>false</OutcomeOccurred>

      </Outcome>

      <Outcome>

        <OutcomeID>26</OutcomeID>

        <OutcomeOccurred>false</OutcomeOccurred>

      </Outcome>

      <Outcome>

        <OutcomeID>27</OutcomeID>

        <OutcomeOccurred>false</OutcomeOccurred>

      </Outcome>

    </OutcomeSet>
```

Beginning in 2018 Outcomes definitions are standardized, and all vendors and groups should report based on definitions posted on the AQI website.

NACOR Standard Quality Reporting

For 2019, NACOR will support the Quality and Improvement Activities Components of MIPS. For the Quality Component, NACOR offers two reporting options (Group Practice Reporting and Individual) and two reporting mechanisms (Qualified Registry and Qualified Clinical Data Registry).

For the Improvement Activities Component, NACOR supports attestation of the Improvement Activities via the NACOR dashboard.

Quick Quality Payment Program (QPP) Links

- [ASA MACRA Website](#)
- [CMS Quality Payment Program Website](#)

NACOR Quality Reporting Options

AQI's NACOR offers two quality reporting options for practices participating in MIPS.

Group Practice Reporting
CMS evaluates the quality data at the Tax Identification Number (TIN) level. All eligible clinicians' (ECs) data are aggregated and summarized together prior to evaluation by CMS. Download CMS guidance on group reporting in MIPS 2019 here.
Individual
CMS evaluates the quality data at the National Provider Identification (NPI) level. Each EC's data are aggregated individually prior to evaluation by CMS.

Considerations for Individual vs. Group Practice Reporting

ECs reporting for the Merit-based Incentive Payment System (MIPS) via QR or QCDR can report at the individual level or through Group Practice Reporting in 2019.

Do I have to report MIPS?
Physicians and other clinicians can check their MIPS eligibility here:
https://qpp.cms.gov/learn/eligibility

What is Individual reporting?
As previously mentioned, ECs reporting at the individual level will be assessed based upon their NPI. Payment adjustments are based on performance across all MIPS categories and will be applied to the individual EC's Medicare Part B reimbursements in the correlating payment year.

What is Group Practice Reporting?
A group can report via Group Practice Reporting when two or more ECs reassign their billing rights to a single Tax Identifier Number (TIN). Groups are assessed collectively at the TIN level across all MIPS categories and payment adjustments will be applied across the group. To participate in Group Practice Reporting via QR or QCDR, all ECs within the TIN must be registered with AQI, including CRNAs.

Are there different reporting requirements for individual and Group Practice Reporting?
Requirements for the MIPS performance categories are similar for individual and group reporting for both QR and QCDR. All ECs, reporting either individually or via Group Practice Reporting must report:

- All payer data, Medicare and Non-Medicare
- Minimum of 60 percent of all denominator-eligible cases for all measures

- Six measures, including one outcome or high-priority measure as specified by CMS
- Attest to Improvement Activities equaling 40 points

ECs and groups electing to report via QCDR will be able to report ASA QCDR measures and MIPS measures, potentially expanding the pool of applicable measures to report for the MIPS Quality Component. ECs and groups reporting via QR can report MIPS measures only.

So, should we report individually or via Group Practice Reporting?
There are several factors: unique to each practice, to consider when deciding whether to report individually or via Group Practice Reporting, including:

- Past performance: Were clinicians successful in PQRS?
  If a group elects to report via Group Practice Reporting, any payment adjustment will be applied at the TIN level to all ECs. If a few ECs fail to meet reporting requirements or have poor performance, this could affect the entire group's payment adjustment.
  - **Please note** ECs must notify AQI if they wish to report via Group Practice Reporting or individually.
- Reporting burden: Can an individual EC successfully meet all reporting requirements? Is it easier to do so as a group?
  Specialty ECs may struggle to meet the six-measure requirement and may find it easier to report as a group. Practices should consider how this can shift reporting burden to a select few members of a group. For example, a cardiac anesthesia measure may apply to only two ECs in a large group. As a reminder, 60 percent of all denominator-eligible cases must be reported for each selected measure.

What if a few clinicians in a group are exempt from MIPS and the rest are not?
If a few clinicians in a practice are exempt from reporting individually, but the group is eligible to report MIPS via Group Practice Reporting, practices have a couple options:

- All eligible clinicians report individually. In this case, the clinicians exempt from MIPS do not have to report at all. Clinicians eligible for MIPS at the individual level must report and meet reporting requirements as an individual. The low volume threshold for individuals is defined as clinicians with less than or equal to $90,000 in allowed charges or less than or equal to 200 Medicare patients and less than or equal to 200 covered professional services for Part B patients.
- All clinicians report as a group. The entire group must report all data for all clinicians, including clinicians who would have been exempt as individuals. As data are submitted at the TIN level, payment adjustments are applied at the TIN level. The low volume threshold for groups is defined as practices with less than or equal to $90,000 in allowed charges or less than or equal to 200 Medicare patients and less than or equal to 200 covered professional services for Part B patients.

What about non patient-facing and hospital-based clinicians? How do they factor in?

ECs who are deemed non patient-facing or hospital-based status must report Quality and Improvement Activities, but not the Advancing Care Information (ACI) category. For these ECs, the Quality component is reweighted to 85 percent and Improvement Activities remain at 15 percent. Non-patient facing and hospital-based ECs and groups still must report six (6) measures or if there are not six, must report all measures that apply to their patient population. For the Improvement Activities component, activities are reweighted for non-patient-facing and hospital-based physicians, with medium activities equaling 20 points and high-weighted activities equaling 40 points. Therefore, non-patient facing, and hospital-based ECs can perform two medium-weighted Improvement Activities or one high-weighted Improvement Activity to meet component requirements.

An entire group is considered non patient-facing or hospital-based if 75 percent or more ECs fall into these categories. CMS letters noting practice eligibility in MIPS clarify whether a group is considered entirely non patient-facing or hospital-based. Groups should consider the differences in requirements and their ability to meet these requirements based on their clinician status and specific practice contingencies.

How should I consider part-time clinicians or locum tenens in my practice?

CMS will notify all clinicians of eligibility in MIPS. If a part-time clinician meets the minimum eligibility requirements, he/she is required to report to MIPS to the same standard of a full-time clinician. Locum tenens are not considered MIPS ECs and they should bill for services they provide using the NPI of the clinician for whom they are substituting.

NACOR Quality Reporting Mechanisms – QR and QCDR

AQI's NACOR offers two quality reporting mechanisms, QCDR and QR, which use NACOR to collect data for quality reporting and help ECs meet the CMS requirements. Practices should consider the following to help them decide which NACOR quality reporting option to choose:

QR versus QCDR

	QR Individual	QR Group	QCDR Individual	QCDR Group
Number of measures to be reported	6	6	6	6
Number of outcome measures to be reported	1	1	1	1
Payers	All Payers	All Payers	All Payers	All Payers
Types of measures available to report	MIPS only	MIPS only	MIPS and non-MIPS/QCDR	MIPS and non-MIPS/QCDR
Data evaluated by	NPI/TIN	TIN	NPI/TIN	TIN

QR – Measures and Reporting Requirements

Identifying Your Measures

Measure specifications provide the details of each measure, including measure description, type of measure (process/outcome), domain name, denominator criteria and numerator options.

> **Denominator**: The eligible cases for a measure or the eligible patient population.

> **Numerator**: The specific clinical action required by the measure for performance.

Practices can only report on measures for which they bill the CPT codes listed in the denominators. In meeting the criteria for reporting measures, participants *can only report on the 18 MIPS measures supported by the NACOR QR.*

For 2019, CMS has recommended the following **Anesthesiology-Specific Measure Set:**

- MIPS #44: CABG: Preoperative Beta-Blocker in Patients with Isolated CABG Surgery

- MIPS #76: Prevention of CVC-Related Bloodstream Infections*

- MIPS #404: Anesthesiology Smoking Abstinence*

- MIPS #424: Perioperative Temperature Management*

- MIPS #430: Prevention of PONV – Combination Therapy*

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

*designates a proposed "high priority measure"

High-Priority Measure: Measure appropriate use, patient safety, efficiency, patient experience or care coordination. Eligible clinicians are not required to report across multiple National Quality Strategy domains.

If your providers see patients in a preoperative clinic or do any inpatient hospital visits that require billing Evaluation and Management (E&M) Codes, additional MIPS measures may be available to report.

Reporting Requirements

- Report at least six measures with one outcome measure available under a QR.
- Report each measure for at least 60 percent of the eligible cases for the EC's patients. This includes case data for all payers (not just Medicare).
- A measure with a zero percent performance rate will not be counted unless it is an inverse measure.

MIPS Measure details can be found on the Quality Payment Program website under the Resource library.

QCDR– Measures and Reporting Requirements

<u>Identifying Your Measures</u>

Measure specifications provide the details of each measure, including measure description, type of measure (process/outcome), denominator criteria and numerator options.

> **Denominator**: The eligible cases for a measure or the eligible patient population.

> **Numerator**: The specific clinical action required by the measure for performance.

Practices can only report on measures for which they bill the CPT codes listed in the denominators.

2019 non-MIPS/QCDR Measures

For 2019 the NACOR QCDR has been approved for 34 measures (18 MIPS and 16 QCDR Measures)

The measure specifications can be found here:

- 2019 MIPS Measures Available for Reporting through AQI NACOR
- 2019 QCDR Measure Booklet

<u>Reporting Requirements</u>

- Report at least six measures with one outcome measure available under a QCDR.
- Report each measure for at least 60 percent of the eligible cases for the EC's patients. This includes case data for all payers (not just Medicare).
- In meeting the criteria for reporting measures, participants can report on a combination of MIPS and non-MIPS measures through the QCDR.
- A measure with a zero percent performance rate will not be counted unless it is an inverse measure.

MIPS Reporting – Improvement Activities (IA) Component

For 2019, AQI's NACOR will support attestation of the Improvement Activities via the NACOR dashboard.

Improvement Activities is a scored category of MIPS that aims to reward eligible clinicians for engaging in activities such as care coordination, beneficiary engagement and patient safety. Improvement Activities account for 15% of the total MIPS Composite Score in performance year 2019 and beyond.

Each activity is assigned a weight of either medium or high. Medium activities receive 10 points and high activities receive 20 points. To receive full credit, eligible clinicians must receive a score of 40 points or more.

ASA has developed the following resources to assist anesthesia providers and practices with the selection of Improvement Activities in order to attest for credit in the MIPS Improvement Activities category:

- 2019 Recommended Improvement Activities

For a full list, visit the CMS Quality Payment Program website.

Attesting to Improvement Activities

Before your practice attests to an Improvement Activity please keep the following in mind:

- Practice must perform the activity for a minimum of 90 days
- Practice needs to maintain documentation for 6 years in case CMS audits
- Practice should contact CMS directly (qpp@cms.hhs.gov) to verify documentation is sufficient

Improvement Activity attestation is completed using the provider list in the NACOR dashboard.

For further assistance with IA attestation please contact your AQI Account Manager or email askaqi@asahq.org.

2019 Quality Reporting Deadlines

	Deadlines
Enrollment in NACOR Quality Reporting	October 31, 2019
January – November 2019 Data Submission Final reconciliation of TIN, NPI and Report to CMS selection by the Practice Improvement Activity attestations must be completed EC's reporting as individuals must have signed provider consents on file	January 31, 2020
December 2019 Data Submission	February 14, 2020
Data submitted by AQI to CMS	No later than March 31, 2020
2019 MIPS Final Scores Released	July 2020

Collecting Your Data

NACOR collects data from anesthesia practices and hospitals through data extracts developed by software vendors or reports generated by the practice and/or hospital.

Participation in **NACOR Basic** and **NACOR Quality Reporting** requires collection of the NACOR Minimum Data Field Requirements:

NACOR Minimum Data Field Requirements	
Unique Anesthesia Episode of Care ID	Patient Sex
Provider TIN	Patient Age, Patient Date of Birth (one or both)
Provider NPI	Anesthesia Type
Provider Credentials (e.g. Anesthesiologist, Certified Registered Nurse Anesthetist, etc.)	ASA Physical Status (with "E" designator when appropriate)
Facility ID – ID created by the practice. Must be the same as the number in the roster (see Exhibit A of the Participation Agreement).	ASA CPT Code (with modifiers as appropriate)
Date of Service	Surgical CPT Code (with modifiers as appropriate)
Anesthesia Start Time	Procedure Status (Emergency, Elective)
Anesthesia End Time	Payment Method

The source of this data is the administrative and billing data from the practice billing software.

If your practice enrolls in NACOR Quality Reporting, the following fields must be added to your data file:

Data Elements	Example
MIPS/non-MIPS Measure Number	MIPS 424
Reported Value (CPT II Code, HCPCS Code, non-MIPS Measure Code)	G9654 or 11A36
Appropriate Code Modifiers	1P, 8P, GQ, or GT
CMS Place of Service Codes	Numeric value from 01 - 99

Reporting Outcomes/Adverse Events (excluding CMS measure data)

If a practice chooses to report patient outcomes to NACOR, the source of the data will be from the Anesthesiology Department data or from linkage to surgical databases that capture patient outcomes. Outcomes collected on paper must be converted to electronic format for submission to NACOR.

- If a practice reports outcomes to NACOR the practice must indicate "yes" or "no" for each outcome they track for each case. Clinicians may still select "no adverse event" in tracking forms, however when preparing reports for NACOR, "no adverse event" must be converted to "no" for each outcome the practice tracks.
- Outcomes definitions are standardized and should be used by all vendors and groups.
- Outcomes must be included in the billing data file. If practices require services to merge billing and administrative data with clinical outcomes data, please contact us at askaqi@asahq.org.

Collection Methodologies

There are many ways to collect the data required for submission to NACOR including:

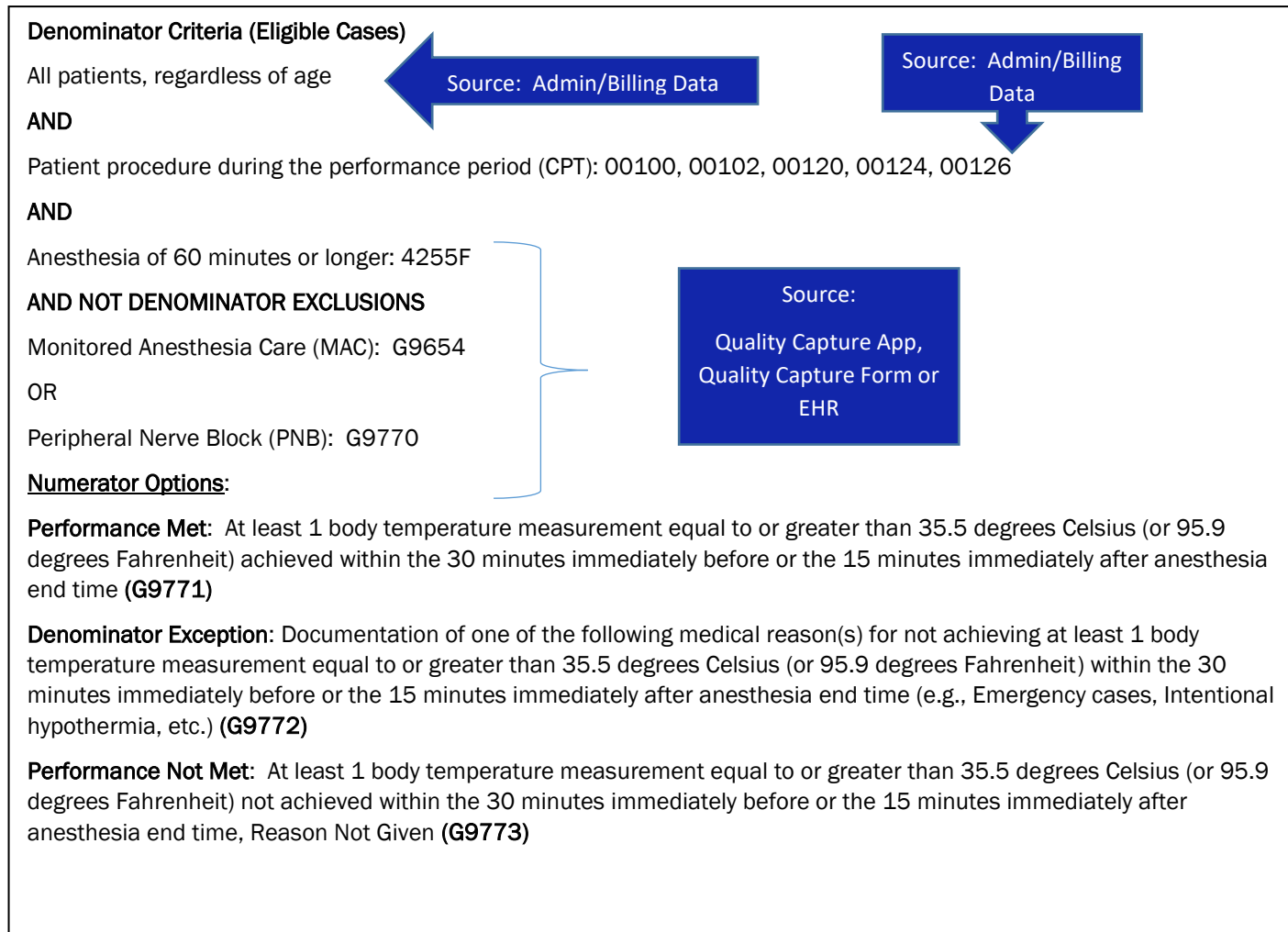- Paper (data capture forms)
    - Sample QCDR data capture form
    - Sample QR data capture form
- Electronic
    - Specially designed applications that utilize tablets, smartphones and computers
    - Electronic Health Record (e.g., Epic or Cerner)
    - AIMS
- Third party vendors

Regardless of the collection method, all data files must be properly merged and formatted and electronically submitted to NACOR.

Note: Data files coming from multiple sources must contain a unique anesthesia episode of care ID in order to link the files together, e.g., Epic (Episode of Care ID), Cerner (FIN number).

The pertinent information that needs to be collected can be found in the measure specifications.

Example: MIPS 424: Perioperative Temperature Management

Denominator Criteria (Eligible Cases)

All patients, regardless of age

AND

Patient procedure during the performance period (CPT): 00100, 00102, 00120, 00124, 00126

AND

Anesthesia of 60 minutes or longer: 4255F

AND NOT DENOMINATOR EXCLUSIONS

Monitored Anesthesia Care (MAC): G9654

OR

Peripheral Nerve Block (PNB): G9770

Numerator Options:

Source: Admin/Billing Data

Source: Admin/Billing Data

Source:

Quality Capture App, Quality Capture Form or EHR

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)**

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

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)**

Quality Concierge is a full-service NACOR quality reporting solution with complete quality analytics and tracking and reporting tools that measure compliance across the entire perioperative continuum. The proven reporting platform integrates with most major anesthesia billing services and EHRs and can be used in non-integrated environments. Real-time provider and administrative dashboards help generate data and allow you to document your practice improvement activities.

For additional information, visit the Quality Concierge page of the ASA website.

Creating Your Data File

NACOR collects data from anesthesia practices and hospitals through data extracts developed by software vendors or reports generated by the practice and/or hospital. Your practice will have access to QR or QCDR reports which will help you monitor providers' measures compliance.

The minimum data required to participate in NACOR are Data Types 1 and 2 described below. Every anesthesia practice has this information available. Type 1 data is self-reported through the NACOR dashboard. Type 2 data is available in any billing system. Type 3 data is the applicable measure codes for each MIPS or QCDR Measure.

Data Type 1: Practice information, Practice Champion information, data submission contacts (i.e., vendor or practice name), provider data (i.e., provider ID, staff role, DOB, NPI, TIN, quality reporting option) and facility information (practice specific facility ID, facility type, facility name and facility location).

Data Source: The practice is issued a unique login, and the information is entered via the NACOR dashboard. This practice demographic information is collected one time. The AQI practice champion should review this information annually to review the accuracy of the data.

The **Provider List** is the source of truth for CMS MIPS reporting as well as ASA billing and invoice reconciliation for reporting fees. It is the practices responsibility to maintain the accuracy of this list. It is recommended that the provider list is updated quarterly. Final changes to the provider list must be completed by January 31, 2019.

The **Facility List** maintains a list of the facilities where your providers complete their cases. The practice specific facility ID should match the facility ID in your practice's data submission file. If the facility ID does not match the ID submitted on the case data this information will not be linked to the case.

Data Type 2: Case-specific data (minimum data requirement) in several tiers: simple (e.g., CPT code, anesthesia type, provider ID number, patient age), and moderate (e.g., duration of surgery, agents used).

Data Source: Administrative and billing data from the practice billing software. Optional complex data (e.g., output from AIMS with vital signs, fluids, drug doses etc.).

Data Type 3: Quality Reporting measure specific codes. Code examples:

MIPS: Category II CPT or HCPCS codes (e.g., 6030F 1P or G9654)

QCDR: QCDR Measure codes (e.g., 10A28)

Practices may use an NACOR-ready Vendor or have their in-house IT staff create the XML-formatted file. The table on page 20 shows the required minimum data fields for QR and QCDR reporting options.

The 2019 NACOR XML and Measure Specifications document will assist IT vendors or IT developers in cresting the appropriate XML data file for each practice.

XML file format testing is recommended prior to file submission. Please use the XML file validator to test files using fake data.

If your IT vendor has any questions regarding the XML schema, please email askaqi@asahq.org.

Submitting data to NACOR

It is recommended that practices upload data to NACOR monthly to regularly monitor measure compliance using the QR or QCDR reports in the NACOR dashboard.

All files must be uploaded to NACOR servers. AQI will not pull files from vendors or practices.

File Review and Notification

To ensure data is successfully uploaded into NACOR, avoid the following file errors:

- Non-XML file format
- Multiple incomplete files
- Files that do not meet the minimum data field requirements to meet CMS measure specifications
- Files without NPI numbers
- Files that do not meet the 2019 Quality Reporting deadlines listed on page 19

More information on XML file format specifications and test file validation can be found at: aqihq.org/vendorsQCDRHelp.aspx

File acceptance notifications will be sent when:

- Production file processed successfully and placed in the queue for processing
- Test file validated against XSD successfully but not placed in the queue for processing

Note: Only production files will be processed, analyzed and displayed in the NACOR dashboard.

Error notifications will be sent when:

- File does not have a '.xml' or '.zip' extension
- File does not pass XSD validation
- File data fails to load into the staging environment
- File data fails to be placed in the queue

The FTP contact and Practice Champion will receive an email if there are problems loading a file. It is the practice/vendor's responsibility to correct errors and resubmit a production file.

Additional Support

Please contact nacorsupport@asahq.org for further assistance.

Data Transmission

File Format Specifications

NACOR data file specifications and other pertinent resources are provided on the [AQI website](#). Files being uploaded undergo full data file validation and must match the outlined schema and required rules.

File Naming

The NACOR data submission process requires that practice identifiers are both included in the file name and within the file. This helps identify practices for data submission should there be any issues opening or reading files. File name length restriction: 100 characters maximum

*The following identifiers are **required** to be present in the file name for the file to pass validation:*

- PID – This is your AQI Practice ID Number
- .xml – This is the file extension
- Practice Name (or abbreviation)
- Date the file was generated
- DOSSTART(YYYYMMDD) – The first date of service in your data file
- DOSEND(YYYYMMDD) – The last date of service in your data file

These values will help identify your practice and ensure your file names are unique each month. Please be assured that including these values to the file names will not cause failures or issues. Each value must be separated by the underscore character "_".

*The following identifier is **optional**:*

- TEST(Y) – indicates the file is a test file

Following is an example of a complete file name:

Practice NAME_Date_PID (AQI ID #) _DOSSTART (20190701)_DOSEND(20190731).xml
Practice NAME_20190815_PID (AQI ID #) _DOSSTART(20190701)_DOSEND(20190731).xml

Additional example file names:

AQI ANESTHESIA_201906010_PID (554711)_DOSSTART(20190501)_DOSEND(20190531).xml
AQI ANESTHESIA_201906010_PID(554711)_DOSSTART(20190501)_DOSEND(20190531)_TEST(Y).xml

Data Submission Process

NACOR participants have two options when uploading their files to the registry – secure FTP (SFTP) or web portal. The URL or host to upload files is nacor.epreop.com.   More details about file naming convention and file upload can be found on the following pages and in the NACOR data submission user guide. For assistance with ftp login credentials, file upload and file feedback reports, email nacorsupport@asahq.org

If you are a new user and do not have ftp credentials, or if you need additional support, please contact nacorsuppport@asahq.org.

Submission Options

Secure FTP (SFTP)

Any SFTP Client can be used to upload data files for submission. Connection detail information is below:

- Host: nacor.epreop.com
- Port: 22
- Protocol: SSH/SFTP

FileZilla SFTP client is suitable for data uploads. Please use the connection information above along with the username/password setup instructions in the previous section.

Note: It is possible that hospital firewalls may limit access to this port for outgoing traffic. If that is the case, you can speak with your hospital IT department to have it opened or utilize the web portal option below.

Web Portal

A new submission portal has been added as another data transfer option.

URL: https://nacor.epreop.com
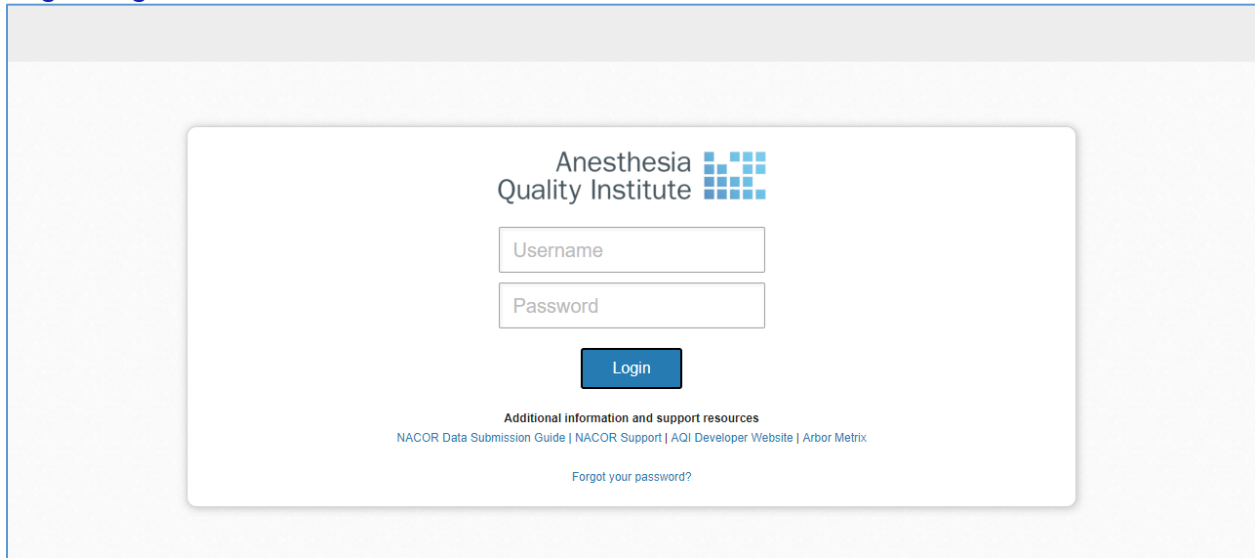
After receiving your account activation email and setting up access, you can utilize the link above to access the web portal. The following screen captures will walk you through the features in the portal.

Directory Configuration

There is a folder in the upload directory utilized for any special feedback reports and documentation back to the practice. Contents of this directory will not be utilized for processing data.
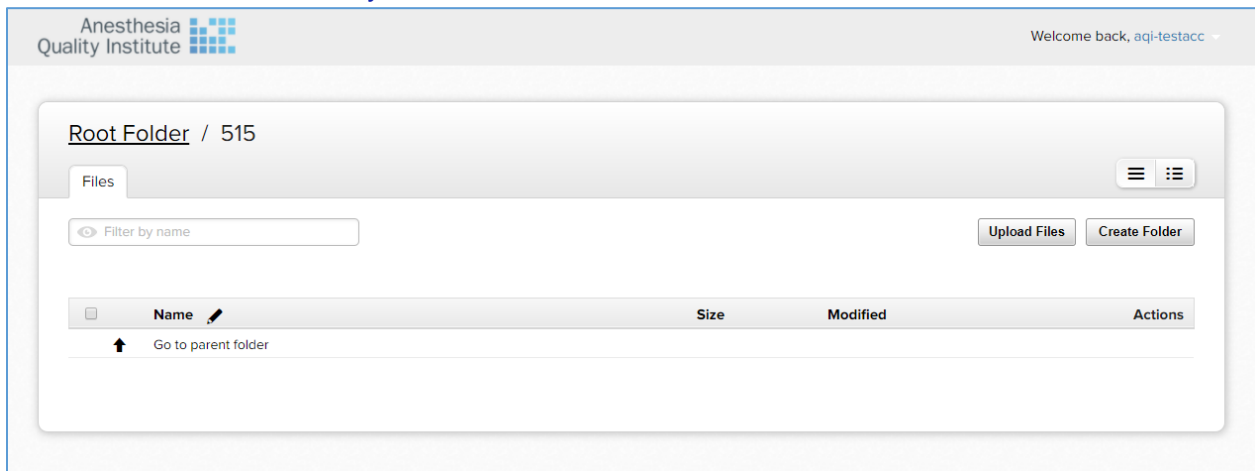
Login Page

You will enter your username and password on the login page. There is a link at the bottom of the page should you forget or require resetting your password. Additional resource links are located at the bottom of the page.
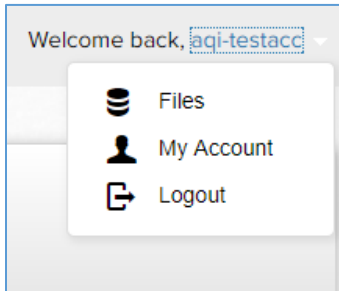
Data Submission Directory

After login, you will be placed into your practice folder or vendor folder depending on your permissions. You can drag and drop files into the window for upload or choose the

"Upload Files" button in the upper right corner. There is no need to create folders in the directory. Note: Files will be pulled from all folders.

In the upper right corner, the currently logged in user is highlighted. Click on "My Account" to change profile information.
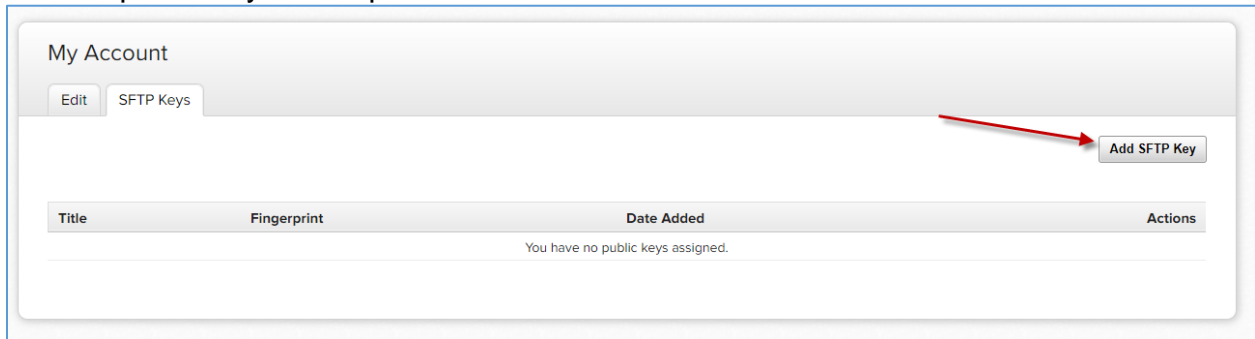
Account Profile

Within "My Account" you may update your password, email, time zones and language preference.
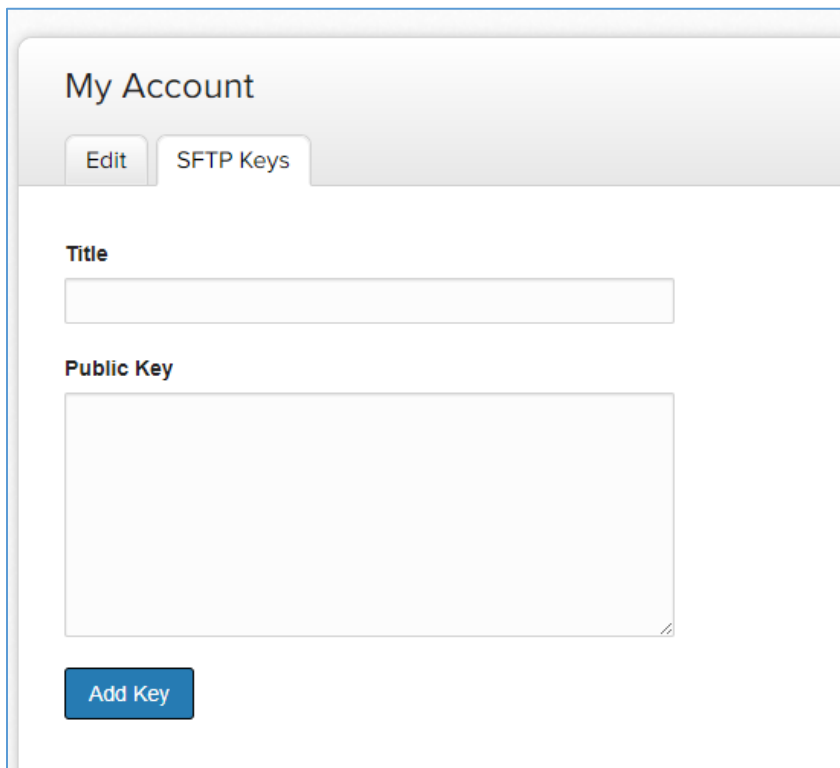
SFTP Keys

SSH Keys can be uploaded to the portal by clicking the "Add SFTP Key" button. A title and the public key will be placed into the text boxes for connection.

Data Validation Emails

AQI Practice Champions and/or their vendors will receive a data validation email one (1) business day after uploading a data file.   Examples of the emails are below:

Example 1: File passed minimum validation criteria

Thank you for submitting your data file to NACOR for processing.

==Your file successfully passed minimum validation criteria; however, not all cases were able to be processed.== Cases passing validation will be incorporated into NACOR. Data analytics will be completed and reports available in the NACOR Dashboard within 48 hours. We are currently working to decrease the processing time to 24 hours. Cases that did not pass validation will not be incorporated into NACOR. You may fix errors for those cases and resubmit your file to NACOR.

==10889 of 11225 (97.01%)== records were valid for submission in the file: **004/AQI Anesthesia_01112019_PID (004) _DOSSTART(20190401)_DOSEND(20190430).xml**.

This validation checks whether your file adheres to the NACOR XML schema and performs certain basic logic checks. **It does not confirm the completeness of measures reported (i.e., numerator and denominator codes).**

To review accuracy of the data provided and, if applicable, whether your data meet QCDR/QR reporting and performance thresholds, please review the data and CMS Quality Reporting reports within the NACOR Dashboard.

Below is a summary of any issues:

- Thehttps://www.aqihq.org/AQIXMLResources/AQISchema.xsd:AnesthesiaCategory' element is invalid - The value 'Other' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:AnesthesiaCategoryCodeType' - The Enumeration constraint failed (occurs 3 times). The AnesthesiaRecordIds of the records containing the error are: 3608913, 3608918, 3628739
- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:HomeState' element is invalid - The value 'Ou' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:USStateCodeType' -

The Enumeration constraint failed (occurs 1 time). The AnesthesiaRecordIds of the records containing the error are: 3622559

- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:HomeZip' element is invalid - The value '7102' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:ZipCodeType' - The Pattern constraint failed (occurs 1 time). The AnesthesiaRecordIds of the records containing the error are: 3632944

Example 2: File passed validation

Thank you for submitting your data file to NACOR for processing.

<mark>**Your file successfully passed validation and will be incorporated into NACOR.**</mark>
Data analytics will be completed and reports available in the NACOR Dashboard within 48 hours. We are currently working to decrease the processing time to 24 hours.

9925 of 9925 (100.00%) records were valid for submission in the file:**123/XYZ_PID (123) _DOSSTART(20191001)_DOSEND(20191130).xml**.

This validation checks whether your file adheres to the NACOR XML schema and performs certain basic logic checks. **It does not confirm the completeness of measures reported (i.e., numerator and denominator codes).**

To review accuracy of the data provided and, if applicable, whether your data meet QCDR/QR reporting and performance thresholds, please review the data and CMS Quality Reporting reports within the NACOR Dashboard.

Additional information and support resources:

NACOR Data Submission Guide | NACOR Support | AQI Developer Website | NACOR Reporting Portal

Example 3: File Failed Validation

Thank you for submitting your data file to NACOR for processing.

<mark>Your file failed validation and will not be incorporated into NACOR.</mark> You may fix errors for those cases and resubmit your file to NACOR.

This validation checks whether your file adheres to the NACOR XML schema and performs certain basic logic checks. **It does not confirm the completeness of measures reported (i.e., numerator and denominator codes).**

To review accuracy of the data provided and, if applicable, whether your data meet QCDR/QR reporting and performance thresholds, please review the data and CMS Quality Reporting reports within the NACOR Dashboard.

Below is a summary of any issues:

- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:AnesthesiaCategory' element is invalid - The value 'Other' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:AnesthesiaCategory CodeType' - The Enumeration constraint failed (occurs 8 times). The AnesthesiaRecordIds of the records containing the error are: 3517883, 3524851, 3524857, 3526127, 3527661, 3528622, 3528649, 3532178
- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:HomeState' element is invalid - The value 'NS' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:USStateCodeType' - The Enumeration constraint failed (occurs 2 times). The AnesthesiaRecordIds of the records containing the error are: 3509819, 3535900
- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:HomeState' element is invalid - The value 'On' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:USStateCodeType' - The Enumeration constraint failed (occurs 1 time). The AnesthesiaRecordIds of the records containing the error are: 3512219
- The 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:HomeState' element is invalid - The value 'Pr' is invalid according to its datatype 'https://www.aqihq.org/AQIXMLResources/AQISchema.xsd:USStateCodeType'

Additional Resources and Contacts

Centers for Medicare and Medicaid Services (CMS)

- Information on MACRA: qpp.cms.gov
- MIPS Eligibility Determination
- Submit a question to CMS on the Quality Payment Program: QPP@cms.hhs.gov
- CMS Enterprise Portal:
  - o Download your quality reports from previous years
  - o Download your MIPS preliminary and final scores
  - o Review Medicare status and payments

American Society of Anesthesiologists/Anesthesia Quality Institute MIPS resources

- 2019 QCDR Measure Booklet
- 2019 MIPS Measures Available for Reporting through AQI NACOR
- Recommended Improvement Activities for Anesthesiologists
- 2019 Sample QCDR Data Capture Form
- 2019 Sample QR Data Capture Form
- 2019 MIPS Performance Year

NACOR Administrative Resources

- 2019 NACOR Definitions

Questions regarding NACOR Basic and/or Quality Reporting Enrollment: qcdr@asahq.org

Questions on measure interpretation/reporting: qra@asahq.org

Questions regarding NACOR dashboard: nacorsupport@asahq.org

Appendix A: 2019 NACOR Minimum Data Set

Data Element	Location in XML Schema	NACOR Basic or Benchmarking	QR	QCDR
Unique Anesthesia Episode of Care ID	<AnesthesiaRecordID>	✓	✓	✓
Staff ID	<StaffID>	✓	✓	✓
Staff Role (MD, DO, CRNA, AA)	<StaffRole>	✓	✓	✓
Staff NPI Number	<NPI>	✓	✓	✓
Facility ID	<FacilityID>	✓	✓	✓
Date of Service	<AnesthesiaStartTime>	✓	✓	✓
Anesthesia Start Time	<AnesthesiaStartTime>	✓	✓	✓
Anesthesia End Time	<AnesthesiaEndTime>	✓	✓	✓
Patient Gender	<Gender>	✓	✓	✓
Patient age or Date of Birth	<DOB> or <Age>	✓	✓	✓
Anesthesia Type (General, MAC, etc.)	<AnesthesiaCategory>	✓	✓	✓
ASA Physical Status (E Designator when appropriate)	<ASAClass>	✓	✓	✓
Surgical CPT Code	<CPTValue>	✓	✓	✓
Payment Code (i.e., Medicare)	<PaymentCode>	✓	✓	✓
MIPS Measure Number *	<QCDRMeasure>		✓	✓
QCDR Measure Number	<QCDRMeasure>			✓
MIPS Measure Code* (i.e., 0581F)	<QCDRCodeValue>		✓	✓
QCDR Measure Code (i.e.11A16)	<QCDRCodeValue>			✓
Modifier (1P or 8P, if applicable) *	<QCDRModifier>		✓	✓
Denominator Exclusion*	<QCDRDenomExclusion>		✓	✓
ASA CPT Code	<CPTAnesValue>	✓	✓	✓
ICD10 (Required if part of the denominator criteria for a measure)	<ICDValue>		✓	✓

Appendix B: NACOR Quality Reporting – Roles and Responsibilities

The Anesthesia Quality Institute's (AQI) National Anesthesia Clinical Outcomes Registry (NACOR) is an approved Qualified Registry (QR) and Qualified Clinical Data Registry (QCDR) for the Centers for Medicare & Medicaid Services (CMS) 2019 Merit-based Incentive Payment System (MIPS) Quality Payment Program.

Regardless of the reporting option you choose, participating in MIPS requires coordination and input from multiple parties. The following roles and responsibilities lay the foundation for successful quality reporting.

NACOR ROLES & RESPONSIBILITIES:

- Offer four options for MIPS reporting: QR Individual Reporting; QR Group Practice Reporting; QCDR Individual Reporting; and QCDR Group Practice Reporting
- Support the clinical improvement activity attestation process
- Support a wide range of anesthesia measures for each reporting option
- Provide website resources to help practices navigate complex MIPS reporting:
  - Educational materials
  - Sample quality capture forms
  - Templates for commonly reported Improvement Activities
  - A list of vendors who have reported their ability to meet AQI NACOR's file formatting and content requirements.
- Provide Account Manager support:
  - NACOR report interpretation available upon request
  - Monthly webinars followed by Q & A
  - Answer measures-related questions via e-mail: qra@asahq.org
- Offer Dashboard reports to help practices monitor QCDR and QR measure compliance
- Submit QCDR and QR files to CMS in accordance with regulatory requirements

PRACTICE ROLES & RESPONSIBILITIES:

- Understand MIPS reporting and performance requirements
- Engage with your AQI Account Manager to ensure the practice is on track with Quality Reporting and the practice champion has a clear understanding of the steps
- Update all provider information and practice information in the NACOR dashboard and notifying AQI of any AQI champion contact changes
- Ensure the accuracy and quality of data submitted to NACOR
- Monitor MIPS reporting compliance via NACOR dashboard reports
- Meet NACOR deadlines
- Choose a physician anesthesiologist or other quality champion to manage and oversee the practice quality reporting activities. These activities typically include:
  - Reading the NACOR User Guide for Quality Reporting
    - Selecting a reporting option - QR Individual Reporting; QR Group Practice Reporting; QCDR Individual Reporting or QCDR Group Practice Reporting

- Completing the contracting process and NACOR Quality Reporting Order Form
  - NACOR Participation Agreement <u>and</u> the ASA Quality Reporting Agreement are required.

PRACTICE ROLES & RESPONSIBILITIES (CONT'D):

- Identify measures that may be reported for all eligible clinicians (ECs) in the practice
- Operationalize the data collection, data formatting, and data submission processes:
  - Determine whether the practice will utilize the service(s) of a vendor(s) or in-house IT staff. When making this decision, consider the type of IT support available within the practice, the IT systems the practice already has in place and the amount of time the quality champion can dedicate to the project. Practices struggling with pulling data from their systems for submission to NACOR may consider using the Quality Concierge^{TM} solution. For more information, email qcdr@asa.hq.org.
- Complete provider list audits in the NACOR dashboard:
  - Verify practice TIN and provider NPI
  - If reporting as individuals, "opt Out" clinician whose data you do not wish to report to CMS
- Take advantage of the resources AQI provides:
  - Utilize the training materials under Resources in the NACOR application to learn the administrative and reporting features in NACOR
  - Review online QR and QCDR reports monthly to identify potential gaps. Follow up with your ECs, in-house IT staff or vendor(s) and take the necessary corrective action. Reports include group performance metrics, individual performance metrics and quality measure compliance reports with drilldown capabilities for more granular data.
  - Participate in NACOR Quality Reporting Virtual Office Hours
  - Read AQI NACOR News and other listserv communications and follow recommended actions

SHARED RESPONSIBILITIES BETWEEN THE PRACTICE AND IT STAFF OR VENDOR(S):

- Establish a quality control process with the practice's vendor(s) or in-house IT staff.
- Merge data from multiple sources into one file prior to submission to AQI NACOR. Additional fee-based services for merging multiple files are available by contacting askaqi@asahq.org.
- Verify the accuracy of the <u>file format and content</u> before submitting files to AQI NACOR.
- Notify vendor if the AQI Practice Champion receives a failed data validation email so data files can be corrected and resubmitted.