



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 0357

Corresponding Measures:

De.2. Measure Title: Abdominal Aortic Aneurysm (AAA) Repair Volume (IQI 4)

Co.1.1. Measure Steward: Agency for Healthcare Research and Quality

De.3. Brief Description of Measure: The number of hospital discharges with a procedure for abdominal aortic aneurysm (AAA) repair for patients 18 years and older or obstetric patients. Includes optional metrics for the number of discharges grouped by rupture status and procedure type.

1b.1. Developer Rationale: Abdominal Aortic Aneurysm (AAA) repair is a relatively rare procedure that requires proficiency with the use of complex equipment; and technical errors may lead to clinically significant complications, such as arrhythmias, acute myocardial infarction, colonic ischemia, and death. Higher volumes have been associated with better outcomes, which represent better quality.

S.4. Numerator Statement: Overall:

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with either

- any-listed ICD-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure code for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for un-ruptured AAA and any-listed ICD-9-CM procedure codes for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair; or
- any-listed ICD-9-CM diagnosis codes for un-ruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair

S.6. Denominator Statement: Overall:

Not applicable.

S.8. Denominator Exclusions: Not applicable

De.1. Measure Type: Outcome

S.17. Data Source: Claims

S.20. Level of Analysis: Facility

IF Endorsement Maintenance – Original Endorsement Date: May 15, 2008 **Most Recent Endorsement Date:** May 01, 2012

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate (IQI 11) (NQF #0359)

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

0357_Evidence_MSF5.0_Data-635278500468343200.doc

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.

Abdominal Aortic Aneurysm (AAA) repair is a relatively rare procedure that requires proficiency with the use of complex equipment; and technical errors may lead to clinically significant complications, such as arrhythmias, acute myocardial infarction, colonic ischemia, and death. Higher volumes have been associated with better outcomes, which represent better quality.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

Comparative Data for the IQI based on the 2008 Nationwide Inpatient Sample (NIS):

	SEX
7,795	Males
1,996	Females

	AGE
12	18 to 39
1,574	40 to 64
3,618	65 to 74
4,587	75+

	PAYER
7,377	Medicare
155	Medicaid
2,243	Other

Based on the above, we see AAAs are occurring nearly four times more frequently in males compared to females. We also observe the procedure occurs primarily with the Medicare population; age 65 years and older.

Information about NIS can be found at this AHRQ link: <http://www.hcup-us.ahrq.gov/nisoverview.jsp#WhatIs>

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

See the following report for a complete treatment of the methodology: "Methods: Applying AHRQ Quality Indicators to Healthcare Cost and Utilization Project (HCUP) Data for the National Healthcare Quality Report" [URL: <http://hcupnet.ahrq.gov/QI%20Methods.pdf?JS=Y>]

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities*

included.) For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.

Comparative Data for the IQI based on the 2008 Nationwide Inpatient Sample (NIS):

SEX
7,795 Males
1,996 Females

AGE
12 18 to 39
1,574 40 to 64
3,618 65 to 74
4,587 75+

PAYER
7,377 Medicare
155 Medicaid
2,243 Other

Information about NIS can be found at this AHRQ link: <http://www.hcup-us.ahrq.gov/nisoverview.jsp#Whatis>

RACE
29,703 White
1,350 Black
949 Hispanic
457 Asian and NH/PI
240 Amer Indian/AN
7,537 Other

Source: 2008 State Inpatient Databases (SID). <http://hcup-us.ahrq.gov/sidoverview.jsp>

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

See the following report for a complete treatment of the methodology: “Methods: Applying AHRQ Quality Indicators to Healthcare Cost and Utilization Project (HCUP) Data for the National Healthcare Quality Report” [URL: <http://hcupnet.ahrq.gov/QI%20Methods.pdf?JS=Y>]

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):
[Surgery](#)

De.6. Non-Condition Specific(check all the areas that apply):

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Elderly

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

[http://www.qualityindicators.ahrq.gov/Downloads/Modules/IQI/V45/TechSpecs/IQI%2004%20Abdominal%20Aortic%20Aneurysm%20\(AAA\)%20Repair%20Volume.pdf](http://www.qualityindicators.ahrq.gov/Downloads/Modules/IQI/V45/TechSpecs/IQI%2004%20Abdominal%20Aortic%20Aneurysm%20(AAA)%20Repair%20Volume.pdf)

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: [IQI_Regression_Coefficients-_Code_Tables_and_Value_Sets.xlsx](#)

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Attachment:

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Overall:

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with either

- any-listed ICD-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure code for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for un-ruptured AAA and any-listed ICD-9-CM procedure codes for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair; or
- any-listed ICD-9-CM diagnosis codes for un-ruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair

S.5. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

ICD-9-CM Un-ruptured AAA diagnosis code:

4414 ABDOM AORTIC ANEURYSM

ICD-9-CM Ruptured AAA diagnosis code:
4413 RUPT ABD AORTIC ANEURYSM

ICD-9-CM Open AAA repair procedure codes:
3834 AORTA RESECTION & ANAST
3844 RESECT ABDM AORTA W REPL
3864 EXCISION OF AORTA

ICD-9-CM Endovascular AAA repair procedure codes:
3971 ENDO IMPL GRFT ABD AORTA
3977 TEMP ENDOVSC OCCLS VESSEL
3978 ENDOVAS IMPLN GRFT AORTA

Exclude cases:

- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Stratum A (Open repair of ruptured AAA):

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with any-listed ICD-9-CM diagnosis codes for ruptured AAA (see above) and any-listed ICD-9-CM procedure code for open AAA repair (see above).

Exclude cases:

- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Stratum B (Open repair of unruptured AAA):

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with any-listed ICD-9-CM diagnosis codes for un-ruptured AAA (see above) and any-listed ICD-9-CM procedure codes for open AAA repair (see above).

Exclude cases:

- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Stratum C (Endovascular repair of ruptured AAA):

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with any-listed ICD-9-CM diagnosis codes for ruptured AAA (see above) and any-listed ICD-9-CM procedure codes for endovascular AAA repair (see above).

Exclude cases:

- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Stratum D (Endovascular repair of unruptured AAA):

Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with any-listed ICD-9-CM diagnosis codes for un-ruptured AAA (see above) and any-listed ICD-9-CM procedure codes for endovascular AAA repair (see above).

Exclude cases:

- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

Overall:

Not applicable.

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions,

time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Stratum A:

Not applicable.

Stratum B:

Not applicable.

Stratum C:

Not applicable.

Stratum D:

Not applicable.

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Not applicable

S.9. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

Not applicable

S.10. Stratification Information (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)

The indicator is stratified into four groups by 1) type of AAA repair (open vs. endovascular) and 2) AAA rupture status.

Cases are assigned to strata according to a hierarchy based on mortality, with cases being assigned to the stratum with the highest mortality rate for which the case qualifies. In the case of AAA Repair Volume the current hierarchy is as follows:

Strata hierarchy (listed from highest mortality to lowest mortality):

1. Stratum A (Open repair of ruptured AAA)
2. Stratum C (Endovascular repair of ruptured AAA)
3. Stratum B (Open repair of unruptured AAA)
4. Stratum D (Endovascular repair of unruptured AAA)

The stratification of the denominator for open vs. endovascular and ruptured vs. unruptured involve the following codes in the denominator specification:

```
/* AAA Repair */
/* ICD-9-CM Procedure Codes: */
/* OPEN */;
'3834' = '1' /* AORTA RESECTION & ANAST */
'3844' = '1' /* RESECT ABDOM AORTA W REPL */
'3864' = '1' /* EXCISION OF AORTA */
/* ENDOVASCULAR */;
'3971' = '1' /* ENDO IMPL GRFT ABD AORTA */
'3977' = '1' /* TEMP ENDOVSC OCCLS VESSEL */
'3978' = '1' /* ENDOVAS IMPLN GRFT AORTA */
/* Include Only: AAA */
/* ICD-9-CM Diagnosis Codes: */
/* RUPTURED */;
```

'4413' = '1' /* RUPT ABD AORTIC ANEURYSM */
/* UNRUPTURED */;
'4414' = '1' /* ABDOM AORTIC ANEURYSM */

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

Other

If other: Stratification, no risk adjustment

S.12. Type of score:

Count

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

The volume is the number of discharges with a diagnosis of, and a procedure for AAA. There are four volume strata: open vs. endovascular, and ruptured vs. un-ruptured.

S.15. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

Not applicable

S.16. Survey/Patient-reported data (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

Specify calculation of response rates to be reported with performance measure results.

S.17. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Claims

S.18. Data Source or Collection Instrument (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

The data source is hospital discharge data such as the HCUP State Inpatient Databases (SID) or equivalent using UB-04 coding standards. The data collection instrument is public-use AHRQ QI software available in SAS or Windows versions.

S.19. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

URL

S.20. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

S.21. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

S.22. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2. Validity – See attached Measure Testing Submission Form

[0357_MeasureTesting_MS5.0_Data-635278500468499186.doc](#)

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

[Coded by someone other than person obtaining original information \(e.g., DRG, ICD-9 codes on claims\)](#)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields) Update this field for **maintenance of endorsement.**

[Yes](#)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For **maintenance of endorsement, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).**

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

Low-volume providers may attempt to increase their volume without improving quality of care by performing the procedure on patients who may not qualify or benefit. Additionally, shifting procedures to high-volume providers may impair access to care for certain types of patients.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
Public Reporting	
Quality Improvement (Internal to the specific organization)	

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for

implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

4a2.2.2. Summarize the feedback obtained from those being measured.

4a2.2.3. Summarize the feedback obtained from other users

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b2. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

Coding professionals follow detail guidelines, are subject to training and credentialing requirements, peer review and audit.

AAA repair volume is measured with great precision, although volume indicators overall are not direct measures of quality and are relatively insensitive. For this reason, this indicator should be used in conjunction with other measures of mortality to ensure that increasing volumes truly improve patient outcomes. The volume-outcome relationship on which this indicator is based may not hold over time, as providers become more experienced or as technology changes.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

[The AHRQ QI measure is paried with a risk-adjusted mortality measure](#)

[Related Measures: Leapfrog survival predictor](#)

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

[Attachment Attachment: 0357_Deliverable_28_QI_Empirical_Methods_v50_20141216.docx](#)

Contact Information
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Additional Information
Ad.1 Workgroup/Expert Panel involved in measure development Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. None
Measure Developer/Steward Updates and Ongoing Maintenance Ad.2 Year the measure was first released: 2001 Ad.3 Month and Year of most recent revision: 08, 2011 Ad.4 What is your frequency for review/update of this measure? Annual Ad.5 When is the next scheduled review/update for this measure? 12, 2011
Ad.6 Copyright statement: The AHRQ QI software is publicly available; no copyright disclaimers Ad.7 Disclaimers: None
Ad.8 Additional Information/Comments: