



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 #: 0355

Corresponding Measures:

De.2. Measure Title: Bilateral Cardiac Catheterization Rate (IQI 25)

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

De.3. Brief Description of Measure: Bilateral cardiac catheterization discharges per 1,000 heart catheterizations discharges for coronary artery disease for patients ages 18 years and older. Excludes valid indications for right- side catheterization discharges and obstetric discharges.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report specific procedure discharges per 1,000 hospital discharges.]

1b.1. Developer Rationale: Providers should reduce the rate of bilateral catheterization for patients where not indicated. Consumers should select providers with lower rates.

S.4. Numerator Statement: Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any-listed ICD-9-CM procedure codes for right and left heart catheterization without any-listed ICD-9-CM diagnosis codes for indications for right-sided catheterization.

S.6. Denominator Statement: Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for heart catheterization and any-listed ICD-9-CM diagnosis codes for coronary artery disease.

S.8. Denominator Exclusions: Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

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:** Jan 18, 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? None

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

[0355_Evidence_MSF5.0_Data.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.

Providers should reduce the rate of bilateral catheterization for patients where not indicated. Consumers should select providers with lower rates.

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.*

5th 25th Median 75th 95th

0.011149 0.014403 0.017009 0.019913 0.024636

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.

[Nationwide Inpatient Sample, 2007](#)

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.*

Based on the 2007 national statistics for bilateral cardiac catheterization <http://hcupnet.ahrq.gov> the 2007 unadjusted rates are as follows:

Overall rate per 100: 6.51 ; Risk adjusted rate:

Male: 6.31

Female: 6.82

Age groups: 18-39: 3.80; 40-64: 4.56; 65-74: 7.10; 75+: 9.56

Payer

Medicare: 8.16

Medicaid: 5.56

Other: 4.50

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

[2007 AHRQ Nationwide Inpatient Sample \(N=1000 hospitals; 7 million discharges\)](#)

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):

Cardiovascular, Cardiovascular : Coronary Artery Disease

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%2025%20Bilateral%20Cardiac%20Catheterization%20Rate.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).

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any-listed ICD-9-CM procedure codes for right and left heart catheterization without any-listed ICD-9-CM diagnosis codes for indications for right-sided catheterization.

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 Right and left heart catheterization procedure codes:

3723 RT/LEFT HEART CARD CATH

ICD-9-CM Indications for right-sided catheterization diagnosis codes:

3910 ACUTE RHEUMATIC PERICARD
3911 ACUTE RHEUMATIC ENDOCARD
3912 AC RHEUMATIC MYOCARDITIS
3918 AC RHEUMAT HRT DIS NEC
3919 AC RHEUMAT HRT DIS NOS
3920 RHEUM CHOREA W HRT INVOL
393 CHR RHEUMATIC PERICARD
3940 MITRAL STENOSIS
3941 RHEUMATIC MITRAL INSUFF
3942 MITRAL STENOSIS W INSUFF
3949 MITRAL VALVE DIS NEC/NOS
3960 MITRAL/AORTIC STENOSIS
3961 MITRAL STENOS/AORT INSUF
3962 MITRAL INSUF/AORT STENOS
3963 MITRAL/AORTIC VAL INSUFF
3968 MITR/AORTIC MULT INVOLV
3969 MITRAL/AORTIC V DIS NOS
3970 TRICUSPID VALVE DISEASE
3971 RHEUM PULMON VALVE DIS
3979 RHEUM ENDOCARDITIS NOS
3980 RHEUMATIC MYOCARDITIS
39890 RHEUMATIC HEART DIS NOS
39891 RHEUMATIC HEART FAILURE
39899 RHEUMATIC HEART DIS NEC
40200 MAL HYPERTEN HRT DIS NOS
40201 MAL HYPERT HRT DIS W CHF
40210 BEN HYPERTEN HRT DIS NOS
40211 BENIGN HYP HRT DIS W CHF
40290 HYPERTENSIVE HRT DIS NOS
40291 HYPERTEN HEART DIS W CHF
40400 MAL HY HT/REN W/O HF/RF
40401 MAL HYPER HRT/REN W HF
40402 MAL HY HT/REN W REN FAIL
40403 MAL HYP HRT/REN W HF/RF
40410 BEN HY HT/REN W/O HF/RF
40411 BEN HYPER HRT/REN W HF
40412 BEN HY HT/REN W REN FAIL
40413 BEN HYP HRT/REN W HF/RF
40490 HY HT/REN NOS W/O HF/RF
40491 HYPER HRT/REN NOS W HF
40492 HY HT/REN NOS W REN FAIL
40493 HYP HRT/REN NOS W HF/RF

4150 ACUTE COR PULMONALE
 4151 PULMON EMBOLISM/INFARCT
 41511 IATROGEN PULM EMB/INFARC
 41512 SEPTIC PULMONARY EMBOLISM
 41513 SADDLE EMBOLUS OF PULMONARY ARTERY
 41519 PULM EMBOL/INFARCT NEC
 4160 PRIM PULM HYPERTENSION
 4161 KYPHOSCOLIOTIC HEART DIS
 4168 CHR PULMON HEART DIS NEC
 4169 CHR PULMON HEART DIS NOS
 4170 ARTERIOVEN FISTU PUL VES
 4171 PULMON ARTERY ANEURYSM
 4178 PULMON CIRCULAT DIS NEC
 4179 PULMON CIRCULAT DIS NOS
 4200 AC PERICARDIT IN OTH DIS
 42090 ACUTE PERICARDITIS NOS
 42091 AC IDIOPATH PERICARDITIS
 42099 ACUTE PERICARDITIS NEC
 4210 AC/SUBAC BACT ENDOCARD
 4211 AC ENDOCARDIT IN OTH DIS
 4219 AC/SUBAC ENDOCARDIT NOS
 4220 AC MYOCARDIT IN OTH DIS
 42290 ACUTE MYOCARDITIS NOS
 42291 IDIOPATHIC MYOCARDITIS
 42292 SEPTIC MYOCARDITIS
 42293 TOXIC MYOCARDITIS
 42299 ACUTE MYOCARDITIS NEC
 4230 HEMOPERICARDIUM
 4231 ADHESIVE PERICARDITIS
 4232 CONSTRICTIV PERICARDITIS
 4233 CARDIAC TAMPONADE
 4238 PERICARDIAL DISEASE NEC
 4239 PERICARDIAL DISEASE NOS
 4240 MITRAL VALVE DISORDER
 4241 AORTIC VALVE DISORDER
 4242 NONRHEUM TRICUSP VAL DIS
 4243 PULMONARY VALVE DISORDER
 42490 ENDOCARDITIS NOS
 42491 ENDOCARDITIS IN OTH DIS
 42499 ENDOCARDITIS NEC
 4250 ENDOMYOCARDIAL FIBROSIS
 4251 HYPERTR OBSTR CARDIOMYOP
 42511 HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY
 42518 OTHER HYPERTROPHIC CARDIOMYOPATHY
 4252 OBSC AFRIC CARDIOMYOPATHY
 4253 ENDOCARD FIBROELASTOSIS
 4254 PRIM CARDIOMYOPATHY NEC
 4255 ALCOHOLIC CARDIOMYOPATHY
 4257 METABOLIC CARDIOMYOPATHY
 4258 CARDIOMYOPATH IN OTH DIS
 4259 SECOND CARDIOMYOPATH NOS
 4280 CHF NOS
 4281 LEFT HEART FAILURE
 42820 SYSTOLIC HRT FAILURE NOS
 42821 AC SYSTOLIC HRT FAILURE

42822 CHR SYSTOLIC HRT FAILURE
 42823 AC ON CHR SYST HRT FAIL
 42830 DIASTOLC HRT FAILURE NOS
 42831 AC DIASTOLIC HRT FAILURE
 42832 CHR DIASTOLIC HRT FAIL
 42833 AC ON CHR DIAST HRT FAIL
 42840 SYST/DIAST HRT FAIL NOS
 42841 AC SYST/DIASTOL HRT FAIL
 42842 CHR SYST/DIASTL HRT FAIL
 42843 AC/CHR SYST/DIA HRT FAIL
 4289 HEART FAILURE NOS
 7450 COMMON TRUNCUS
 74510 COMPL TRANSPOS GREAT VES
 74511 DOUBLE OUTLET RT VENTRIC
 74512 CORRECT TRANSPOS GRT VES
 74519 TRANSPOS GREAT VESS NEC
 7452 TETRALOGY OF FALLOT
 7453 COMMON VENTRICLE
 7454 VENTRICULAR SEPT DEFECT
 7455 SECUNDUM ATRIAL SEPT DEF
 74560 ENDOCARD CUSHION DEF NOS
 74561 OSTIUM PRIMUM DEFECT
 74569 ENDOCARD CUSHION DEF NEC
 7457 COR BILOCULARE
 7458 SEPTAL CLOSURE ANOM NEC
 7459 SEPTAL CLOSURE ANOM NOS
 74600 PULMONARY VALVE ANOM NOS
 74601 CONG PULMON VALV ATRESIA
 74602 CONG PULMON VALVE STENOS
 74609 PULMONARY VALVE ANOM NEC
 7461 CONG TRICUSP ATRES/STEN
 7462 EBSTEINS ANOMALY
 7463 CONG AORTA VALV STENOSIS
 7464 CONG AORTA VALV INSUFFIC
 7465 CONGEN MITRAL STENOSIS
 7466 CONG MITRAL INSUFFICIENC
 7467 HYPOPLAS LEFT HEART SYND
 74681 CONG SUBAORTIC STENOSIS
 74682 COR TRIATRIATUM
 74683 INFUNDIB PULMON STENOSIS
 74684 OBSTRUCT HEART ANOM NEC
 74685 CORONARY ARTERY ANOMALY
 74686 CONGENITAL HEART BLOCK
 74687 MALPOSITION OF HEART
 74689 CONG HEART ANOMALY NEC
 7469 CONG HEART ANOMALY NOS
 7470 PATENT DUCTUS ARTERIOSUS
 74710 COARCTATION OF AORTA
 74711 INTERRUPT OF AORTIC ARCH

 74720 CONG ANOM OF AORTA NOS
 74721 ANOMALIES OF AORTIC ARCH
 74722 AORTIC ATRESIA/STENOSIS
 74729 CONG ANOM OF AORTA NEC
 7473 PULMONARY ARTERY ANOM

74731 PULMONARY ARTERY COARCTATION AND ATRESIA
 74740 GREAT VEIN ANOMALY NOS
 74741 TOT ANOM PULM VEN CONNEC
 74742 PART ANOM PULM VEN CONN
 74749 GREAT VEIN ANOMALY NEC
 7475 UMBILICAL ARTERY ABSENCE
 74760 UNSP PRPHERL VASC ANOMAL
 74761 GSTRONTEST VESL ANOMALY
 74762 RENAL VESSEL ANOMALY
 74763 UPR LIMB VESSEL ANOMALY
 74764 LWR LIMB VESSEL ANOMALY
 74769 OTH SPCF PRPH VSCL ANOML
 74781 CEREBROVASCULAR ANOMALY
 74782 SPINAL VESSEL ANOMALY
 74783 PERSISTENT FETAL CIRC
 74789 CIRCULATORY ANOMALY NEC
 7479 CIRCULATORY ANOMALY NOS

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

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for heart catheterization and any-listed ICD-9-CM diagnosis codes for coronary artery disease.

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).

ICD-9-CM Heart catheterization procedure codes:

3722 LEFT HEART CARDIAC CATH

3723 RT/LEFT HEART CARD CATH

ICD-9-CM Coronary artery disease diagnosis codes:

41000 AMI ANTEROLATERAL,UNSPEC

41001 AMI ANTEROLATERAL, INIT

41002 AMI ANTEROLATERAL,SUBSEQ

41010 AMI ANTERIOR WALL,UNSPEC

41011 AMI ANTERIOR WALL, INIT

41012 AMI ANTERIOR WALL,SUBSEQ

41020 AMI INFEROLATERAL,UNSPEC

41021 AMI INFEROLATERAL, INIT

41022 AMI INFEROLATERAL,SUBSEQ

41030 AMI INFEROPOST, UNSPEC

41031 AMI INFEROPOST, INITIAL

41032 AMI INFEROPOST, SUBSEQ

41040 AMI INFERIOR WALL,UNSPEC

41041 AMI INFERIOR WALL, INIT

41042 AMI INFERIOR WALL,SUBSEQ

41050 AMI LATERAL NEC, UNSPEC

41051 AMI LATERAL NEC, INITIAL

41052 AMI LATERAL NEC, SUBSEQ

41060 TRUE POST INFARCT,UNSPEC

41061 TRUE POST INFARCT, INIT

41062 TRUE POST INFARCT,SUBSEQ

41070 SUBENDO INFARCT, UNSPEC

41071 SUBENDO INFARCT, INITIAL
41072 SUBENDO INFARCT, SUBSEQ
41080 AMI NEC, UNSPECIFIED
41081 AMI NEC, INITIAL
41082 AMI NEC, SUBSEQUENT
41090 AMI NOS, UNSPECIFIED
41091 AMI NOS, INITIAL
41092 AMI NOS, SUBSEQUENT
4110 POST MI SYNDROME
4111 INTERMED CORONARY SYND
41181 CORONARY OCCLSN W/O MI
41189 AC ISCHEMIC HRT DIS NEC
412 OLD MYOCARDIAL INFARCT
4130 ANGINA DECUBITUS
4131 PRINZMETAL ANGINA
4139 ANGINA PECTORIS NEC/NOS
4140 CORONARY ATHEROSCLEROSIS
41400 COR ATH UNSP VSL NTV/GFT
41401 CRNRY ATHRSCL NATVE VSSL
41402 CRN ATH ATLGN VN BPS GRFT
41403 CRN ATH NONATLG BLG GRFT
41404 COR ATH ARTRY BYPAS GRFT
41405 COR ATH BYPASS GRAFT NOS
41406 COR ATH NATV ART TP HRT
41407 COR ATH BPS GRAFT TP HRT
41410 ANEURYSM, HEART (WALL)
41411 CORONARY VESSEL ANEURYSM
41412 DISSECTION COR ARTERY
41419 ANEURYSM OF HEART NEC
4143 COR ATH D/T LPD RCH PLAQ
4144 CORONARY ATHEROSCLEROSIS DUE TO CALCIFID LESION
4148 CHR ISCHEMIC HRT DIS NEC
4149 CHR ISCHEMIC HRT DIS NOS

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

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

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.)

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

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.)

Observed (raw) rates may be stratified by gender, age groups, race/ethnicity categories and payer categories.
Risk adjustment of the data is recommended using age and sex. Reliability adjustment is also recommended.

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment) No risk adjustment or risk stratification If other:
S.12. Type of score: Rate/proportion 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 = Lower 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.) Each Inpatient Quality Indicator (IQI) expressed as a rate, is defined as outcome of interest/population at risk or numerator/denominator. The Quality Indicators software performs five steps to produce the IQI rates. 1) Discharge-level data is used to mark inpatient records containing outcomes of interest. 2) Identify populations at risk. 3) Calculate observed rates. 4) For rates that are not risk-adjusted, the risk-adjusted rate equals the observed rate. 5) Create multivariate signal extraction (MSX) smoothed rates. Shrinkage factors are applied to the risk-adjusted rates for each PQI in the MSX process. For each IQI, the shrinkage estimate reflects a reliability adjustment unique to each indicator. Full information on IQI algorithms and specification can be found at http://qualityindicators.ahrq.gov/iqi_download.htm.
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. Hospital administrative discharge data. See data requirements in the AHRQ QI Windows Application Documentation: http://www.qualityindicators.ahrq.gov/software.htm
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

[0355_MeasureTesting_MS5.0_Data.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.

No issues have been identified

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.

None identified

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.)

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: 0355_Deliverable_28_QI_Empirical_Methods_v50_20141216.docx
Contact Information
Co.1 Measure Steward (Intellectual Property Owner): Agency for Healthcare Research and Quality Co.2 Point of Contact: Pamela, Owens, Pam.Owens@ahrq.hhs.gov, 301-427-1412- Co.3 Measure Developer if different from Measure Steward: Agency for Healthcare Research and Quality Co.4 Point of Contact: John, Bott, john.bott@ahrq.hhs.gov, 301-427-1317-
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.
Measure Developer/Steward Updates and Ongoing Maintenance Ad.2 Year the measure was first released: 2002 Ad.3 Month and Year of most recent revision: 10, 2010 Ad.4 What is your frequency for review/update of this measure? annually Ad.5 When is the next scheduled review/update for this measure? 05, 2011
Ad.6 Copyright statement: The AHRQ QI software is publicly available. We have no copyright disclaimers. Ad.7 Disclaimers:
Ad.8 Additional Information/Comments: