

NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

NQF #: 0259 NQF Project: Renal Endorsement Maintenance 2011
(for Endorsement Maintenance Review) Original Endorsement Date: Nov 15, 2007 Most Recent Endorsement Date: Nov 15, 2007
BRIEF MEASURE INFORMATION
De.1 Measure Title: Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula
Co.1.1 Measure Steward: Society for Vascular Surgery
De.2 Brief Description of Measure: Percentage of patients with advanced chronic disease (CKD4 or 5) or end-stage renal disease (ESRD) undergoing open surgical implantation of permanent hemodialysis access who receive an autogenous arterial venous fistula(AVF).
2a1.1 Numerator Statement: Patients undergoing a hemodialysis vascular access procedure who receive an autogenous arteriovenous fistula
2a1.4 Denominator Statement: All patients with CKD4, CKD5 or ESRD who undergo open surgical placement of permanent hemodialysis access.
2a1.8 Denominator Exclusions: Clinician documented the patient was not an eligible candidate for autogenous AV fistula. A typical medical exclusion would include patient not eligible for autogenous AV fistula based on results of vein mapping
1.1 Measure Type: Process 2a1. 25-26 Data Source: Administrative claims 2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual
1.2-1.4 Is this measure paired with another measure? No
De.3 If included in a composite, please identify the composite measure (<i>title and NQF number if endorsed</i>):

STAFF NOTES (<i>issues or questions regarding any criteria</i>)
Comments on Conditions for Consideration:
Is the measure untested? Yes <input type="checkbox"/> No <input type="checkbox"/> If untested, explain how it meets criteria for consideration for time-limited endorsement:
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (<i>check De.5</i>): 5. Similar/related endorsed or submitted measures (<i>check 5.1</i>): Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT
Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All

NQF #0259 Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula

three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)

1a. High Impact: H M L I

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

De.4 Subject/Topic Areas (Check all the areas that apply): Renal, Surgery : General Surgery, Surgery : Vascular

De.5 Cross Cutting Areas (Check all the areas that apply): Safety : Complications, Safety : Healthcare Associated Infections

1a.1 Demonstrated High Impact Aspect of Healthcare: A leading cause of morbidity/mortality, Frequently performed procedure, High resource use, Patient/societal consequences of poor quality, Severity of illness

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (Provide epidemiologic or resource use data):

Autogenous AV fistulas have higher long-term patency rates, lower rates of infection and require less repeat intervention. All of these factors contribute to better safety and lower costs.

1a.4 Citations for Evidence of High Impact cited in 1a.3: Perera GB, Mueller MP, Kubaska SM, Wilson SE, Lawrence PF, Fujitani RM: Superiority of autogenous arteriovenous hemodialysis access: Maintenance of function with fewer secondary interventions. *Ann Vasc Surg* 18:66-73, 2004

Huber TS, Carter JW, Carter RL, Seeger JM: Patency of autogenous and polytetrafluoroethylene upper extremity arteriovenous hemodialysis accesses: A systematic review. *J Vasc Surg* 38:1005-1011, 2003

Nassar GM, Ayus JC: Infectious complications of the hemodialysis access. *Kidney Int* 60:1-13, 20

1b. Opportunity for Improvement: H M L I

(There is a demonstrated performance gap - variability or overall less than optimal performance)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:

Higher utilization of autogenous AV fistulas will lead to less complications and lower costs.

1b.2 Summary of Data Demonstrating Performance Gap (Variation or overall less than optimal performance across providers):

[For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.]

1b.3 Citations for Data on Performance Gap: [For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]

60 to 65% of patients initiate hemodialysis with a catheter . Even 60 d after initiation of dialysis, 46% of patients are catheter dependent .In a study of 8154 patients 28% were dialyzed via AVF, 49% via AVG and 23% via central venous catheter.

From 2011 data in 73367 patients reported 26471 had fistula placed(Incident US Data, <http://fistulafirst.org/AboutFistulaFirst/FFBIData.aspx>)

Reddan D, Klassen P, Frankenfield DL, Szczech L, Schwab S, Coladonato J, Rocco M, Lowrie EG, Owen WF Jr; National ESRD CPM Work Group: National profile of practice patterns for hemodialysis vascular access in the United States. *J Am Soc Nephrol* 13 :2117– 2124,2002

1b.4 Summary of Data on Disparities by Population Group: [For Maintenance –Descriptive statistics for performance results for this measure by population group]

Even within the United States, there is a considerable geographic variation in placement of AVF. Hirth et al showed a tenfold regional variation, with the East South Central region of the United States having a 2.7-fold higher adjusted odds ratio for placement of AVG than the national average, whereas this ratio was only 0.2 for the New England region

Hirth RA, Turenne MN & Woods JD. et al Predictors of type of vascular access in hemodialysis patients. *JAMA* 1996; 276: 1303–1
Expected years on hemodialysis in diabetics with AVF is 5.5 vs 3.9 in patients with AVG

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance* – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]

Analysis of the DMMS sample of 5507 patients in 1993 by Dhingra et al: patients with diabetes were found to have approximately half again as high an adjusted risk for death for PTFE graft (relative risk [RR] 1.4; 95% confidence interval [CI] 1.1 to 1.8) and catheter (RR 1.5; 95% CI 1.2 to 2.0) as for AV fistula.

Dhingra RK, Young EW, Hulbert-Shearon TE, Leavey SF, Port FK: Type of vascular access and mortality in US hemodialysis patients. *Kidney Int* 60 :1443– 1451,2001

McClellan WM, Wasse H, McClellan AC, Holt J, Krisher J, Waller LA. Geographic concentration of poverty and arteriovenous fistula use among ESRD patients. *J Am Soc Nephrol*. 2010 Oct;21(10):1776-82

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome? Yes No **If not a health outcome, rate the body of evidence.**

Quantity: H M L I Quality: H M L I Consistency: H M L I

Quantity	Quality	Consistency	Does the measure pass subcriterion 1c?
M-H	M-H	M-H	Yes <input type="checkbox"/>
L	M-H	M	Yes <input type="checkbox"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="checkbox"/>
M-H	L	M-H	Yes <input type="checkbox"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="checkbox"/>
L-M-H	L-M-H	L	No <input type="checkbox"/>

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service

Does the measure pass subcriterion 1c?
Yes IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship (*Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process-health outcome; intermediate clinical outcome-health outcome*):

Process

Process-Health Outcome

1c.2-3 Type of Evidence (*Check all that apply*):

Clinical Practice Guideline

1c.4 Directness of Evidence to the Specified Measure (*State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population*):

1c.5 Quantity of Studies in the Body of Evidence (*Total number of studies, not articles*):

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*):

1c.7 Consistency of Results across Studies (*Summarize the consistency of the magnitude and direction of the effect*): All studies point out that the majority of patients (>60%) do not initiate dialysis via SVF

1c.8 Net Benefit (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit*)

- *benefit over harms*):

Achieving the CMS target of at least 66% AV fistula use among long-term renal dialysis patients will produce clinical benefits for patients and savings in vascular access costs for Medicare. In the long term, Medicare ESRD expenditures may increase somewhat as a result of decreased mortality with AV fistula relative to PTFE graft or catheter access modalities. However, from a societal perspective, these gains in survival will be achieved at a cost that is well within the range that commonly is considered to represent good value for money. For example, the incremental cost of \$40,000 to achieve the 66% fistula target is well below the current Medicare expenditure of \$63,000 per year for a patient who is on dialysis
Schon D, Blume SW, Niebauer K, Hollenbeak CS, de Lissovoy G. Increasing the use of arteriovenous fistula in hemodialysis: economic benefits and economic barriers. Clin J Am Soc Nephrol. 2007 Mar;2(2):268-76. Epub 2007 Jan 24. PubMed PMID: 17699424

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: National Kidney Foundation Kidney Disease Outcomes Quality Initiative

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: NA

1c.13 Grade Assigned to the Body of Evidence: A,B

1c.14 Summary of Controversy/Contradictory Evidence:

1c.15 Citations for Evidence other than Guidelines (*Guidelines addressed below*):

Lynch JR, Wasse H, Armistead NC, McClellan WM. Achieving the goal of the Fistula First breakthrough initiative for prevalent maintenance hemodialysis patients. Am J Kidney Dis. 2011 Jan;57(1):78-89

1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #):
GUIDELINE 3

Selection of Permanent Vascular Access and Order of Preference for Placement of AV Fistulae

A. The order of preference for placement of AV fistulae in patients with kidney failure who will become hemodialysis dependent is:

1. A wrist (radial-cephalic) primary AV fistula (Evidence)
2. An elbow (brachial-cephalic) primary AV fistula (Evidence/Opinion)

1c.17 Clinical Practice Guideline Citation: QDOQI Guidelines and SVS Guidelines published in JVS supplement.

NKF KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations

2006 Updates

Hemodialysis Adequacy

Peritoneal Dialysis Adequacy

Vascular Access

2.1 The order of preference for placement of fistulae in patients with kidney failure who choose HD as their initial mode of KRT should be (in descending order of preference):

2.1.1 Preferred: Fistulae. (B)

- o 2.1.1.1 A wrist (radiocephalic) primary fistula. (A)
- o 2.1.1.2 An elbow (brachiocephalic) primary fistula. (A)
- o 2.1.1.3 A transposed brachial basilic vein fistula: (B)

1c.18 National Guideline Clearinghouse or other URL:
http://www.kidney.org/professionals/KDOQI/guideline_upHD_PD_VA/va_guide2.htm

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? **Yes**

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: **NKF**

1c.21 System Used for Grading the Strength of Guideline Recommendation: **Other**

1c.22 If other, identify and describe the grading scale with definitions: **Evidence vs. Opinion**

1c.23 Grade Assigned to the Recommendation: **Evidence**

1c.24 Rationale for Using this Guideline Over Others: **NA**

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
 1c.25 Quantity: **Moderate** 1c.26 Quality: **Moderate** 1c.27 Consistency: **Moderate**

Was the threshold criterion, *Importance to Measure and Report*, met?
 (1a & 1b must be rated moderate or high and 1c yes) Yes No
 Provide rationale based on specific subcriteria:

**For a new measure if the Committee votes NO, then STOP.
 For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.**

2. RELIABILITY & 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. (evaluation criteria)
 Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

S.1 Measure Web Page (*In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? **No**

S.2 If yes, provide web page URL:

2a. RELIABILITY. Precise Specifications and Reliability Testing: H M L I

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement (*Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome*):
Patients undergoing a hemodialysis vascular access procedure who receive an autogenous arteriovenous fistula

2a1.2 Numerator Time Window (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):
point of care at time of dialysis access procedure

2a1.3 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, codes with descriptors, and/or specific data collection items/responses*):
Fistula performed G8530: Autogenous AV fistula received

NQF #0259 Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula

<p>2a1.4 Denominator Statement <i>(Brief, narrative description of the target population being measured):</i> All patients with CKD4, CKD5 or ESRD who undergo open surgical placement of permanent hemodialysis access.</p> <p>2a1.5 Target Population Category <i>(Check all the populations for which the measure is specified and tested if any):</i> Populations at Risk</p> <p>2a1.6 Denominator Time Window <i>(The time period in which cases are eligible for inclusion):</i> 1 year</p> <p>2a1.7 Denominator Details <i>(All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):</i> Denominator Coding ICD-9 585.4, 585.5, 585.6 or 996.73 and CPT 36818, 36819, 36820, 36821, 36825 or 36830</p> <p>2a1.8 Denominator Exclusions <i>(Brief narrative description of exclusions from the target population):</i> Clinician documented the patient was not an eligible candidate for autogenous AV fistula. A typical medical exclusion would include patient not eligible for autogenous AV fistula based on results of vein mapping</p> <p>2a1.9 Denominator Exclusion Details <i>(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):</i> G8531 Medical reason for not performing an autogenous AV fistula</p> <p>2a1.10 Stratification Details/Variables <i>(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):</i> N/A</p> <p>2a1.11 Risk Adjustment Type <i>(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13):</i> No risk adjustment or risk stratification 2a1.12 If "Other," please describe:</p> <p>2a1.13 Statistical Risk Model and Variables <i>(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):</i></p> <p>2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:</p>
<p>2a1.17-18. Type of Score: Rate/proportion</p> <p>2a1.19 Interpretation of Score <i>(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):</i> Better quality = Higher score</p> <p>2a1.20 Calculation Algorithm/Measure Logic <i>(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; aggregating data; risk adjustment; etc.):</i> Identify denominator of patients meeting eligibility criteria. Subtract patients with reported exclusions for medical reasons. Identify patients in denominator who meet numerator criteria and calculate proportion of patients in denominator who meet numerator criteria.</p> <p>2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:</p>

NQF #0259 Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula

2a1.24 **Sampling (Survey) Methodology.** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

2a1.25 **Data Source** (Check all the sources for which the measure is specified and tested). If other, please describe:
[Administrative claims](#)

2a1.26 **Data Source/Data Collection Instrument** (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.): [Practice audit submitted with measure in 2010.](#)

2a1.27-29 **Data Source/data Collection Instrument Reference Web Page URL or Attachment:** [Attachment Data tables for 2b, AV fistula and CEA with patch \(10-07-2010\).docx](#)

2a1.30-32 **Data Dictionary/Code Table Web Page URL or Attachment:**
[Attachment Data tables for 2b, AV fistula and CEA with patch \(10-07-2010\)-634479783645742887.docx](#)

2a1.33 **Level of Analysis** (Check the levels of analysis for which the measure is specified and tested): [Clinician : Group/Practice, Clinician : Individual](#)

2a1.34-35 **Care Setting** (Check all the settings for which the measure is specified and tested): [Ambulatory Care : Ambulatory Surgery Center \(ASC\), Hospital/Acute Care Facility](#)

2a2. **Reliability Testing.** (Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.)

2a2.1 **Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):
[63 randomly chosen AV fistula charts of medicare patients in three group practices in three states.](#)

2a2.2 **Analytic Method** (Describe method of reliability testing & rationale):
[All data was gathered from reports and bills that were submitted to CMS](#)

2a2.3 **Testing Results** (Reliability statistics, assessment of adequacy in the context of norms for the test conducted):

G code	CPT	ICD9	Total				
Practice1	18/18 100%	14/18 78%	18/18 100%	50/54	93%		
Practice 2	10/21 48%	21/21 100%	16/21 76%	47/63	75%		
Practice	30/24 0	24/24 100%	23/24 96%	47/72	65%		
Overall	28/63 44%	50/63 79%	57/63 91%	135/189	71%		

The data was gathered in the same method and from the same information at each site The results are expected to be reliable.

2b. **VALIDITY. Validity, Testing, including all Threats to Validity:** H M L I

2b1.1 Describe how the measure specifications (measure focus, target population, and exclusions) are consistent with the evidence cited in support of the measure focus (criterion 1c) and identify any differences from the evidence:

2b2. **Validity Testing.** (Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.)

2b2.1 **Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if

NQF #0259 Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula

a sample, characteristics of the entities included):

63 randomly chosen AV fistula charts of medicare patients in three group practices in three states.

2b2.2 Analytic Method (Describe method of validity testing and rationale; if face validity, describe systematic assessment):

Clinical documentation specialist visited 3 vascular surgery practices in NY, NJ and MI. Actual charts and submitted bills were assessed for the use of expected G, CPT and ICD-9 codes.

2b2.3 Testing Results (Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment):

see results in 2b.2.3.

POTENTIAL THREATS TO VALIDITY. (All potential threats to validity were appropriately tested with adequate results.)

2b3. Measure Exclusions. (Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.)

2b3.1 Data/Sample for analysis of exclusions (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

N/A

2b3.2 Analytic Method (Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference):

N/A

2b3.3 Results (Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):

N/A

2b4. Risk Adjustment Strategy. (For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.)

2b4.1 Data/Sample (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

N/A

2b4.2 Analytic Method (Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables):

N/A

2b4.3 Testing Results (Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):

N/A

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A

2b5. Identification of Meaningful Differences in Performance. (The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.)

2b5.1 Data/Sample (Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

Each site was assessed individually for expected use of G, CPT and ICD-9 codes in chart documentation and on bills. Then overall compliance of the three sites together.

2b5.2 Analytic Method (Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):

Interview of key billing personnel at each site.

2b5.3 Results (Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance):

It is difficult to tease out the differences between actual performance and coding report errors. Coding errors were more likely to be "procedure-based" than attributable to human error-- while physicians and coders appeared to embrace the concepts underpinning PQRI, they were unsuccessful in communicating these concepts to their billing companies and software.

2b6. Comparability of Multiple Data Sources/Methods. (If specified for more than one data source, the various approaches result in comparable scores.)

2b6.1 Data/Sample (Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

Methods and data collection were consistent over all test sites.

2b6.2 Analytic Method (Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):

2b6.3 Testing Results (Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted):

2c. Disparities in Care: H M L I NA (If applicable, the measure specifications allow identification of disparities.)

2c.1 If measure is stratified for disparities, provide stratified results (Scores by stratified categories/cohorts): Not stratified for disparities.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:

N/A

2.1-2.3 Supplemental Testing Methodology Information:

Attachment

SVS Data tables for 2b AV fistula and CEA with patch (10-07-2010).docx

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met? (Reliability and Validity must be rated moderate or high) Yes No

Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

C.1 Intended Purpose/ Use (Check all the purposes and/or uses for which the measure is intended): Professional Certification or Recognition Program, Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Regulatory and Accreditation Programs

3.1 Current Use (Check all that apply; for any that are checked, provide the specific program information in the following questions): Public Reporting, Payment Program

3a. Usefulness for Public Reporting: H M L I

(The measure is meaningful, understandable and useful for public reporting.)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large (If used in a public reporting program, provide name of program(s), locations, Web page URL(s)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [For **Maintenance** – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.]

PQRI

3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: **Clinicians and coders appeared to understand purpose of measure and used it appropriately; billing software was not programmed in accordance, however.**

Data/Sample: 63 medicare patient charts

Methods: QI project to verify the expected use of G, CPT and ICD-9 codes

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s):

3b. Usefulness for Quality Improvement: H M L I

(The measure is meaningful, understandable and useful for quality improvement.)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s): [For **Maintenance** – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].

PQRS, Fistula First Breakthrough Initiative

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

Overall, to what extent was the criterion, *Usability*, met? H M L I

Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)

4a. Data Generated as a Byproduct of Care Processes: H M L I

4a.1-2 How are the data elements needed to compute measure scores generated? (Check all that apply).

Data used in the measure are:

4b. Electronic Sources: H M L I

4b.1 Are the data elements needed for the measure as specified available electronically (Elements that are needed to compute measure scores are in defined, computer-readable fields):

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H M L I

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during

testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
 The common systemic breakdown at the point of billing software should be addressed since the practices we visited were not aware of the problems. This may account for some of the unexpected failures within the PQRI program.

4d. Data Collection Strategy/Implementation: H M L I

A.2 Please check if either of the following apply (*regarding proprietary measures*):

4d.1 Describe what you have learned/modified 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 (*e.g., fees for use of proprietary measures*):

The cost of implementing this measure is the time and money spent for education of staff on the proper coding techniques to be used and ensuring that they are used. The costs are quantifiable and vary by site contingent upon biller salaries, educational forums and physician time invested.

Overall, to what extent was the criterion, *Feasibility*, met? H M L I

Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes No

Rationale:

If the Committee votes No, STOP.

If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND 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 before a final recommendation is made.

5.1 If there are related measures (*either same measure focus or target population*) or competing measures (*both the same measure focus and same target population*), list the NQF # and title of all related and/or competing measures:

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as [NQF-endorsed measure\(s\)](#): Are the measure specifications completely harmonized?

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

5b. Competing Measure(s)

5b.1 If this measure has 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*):

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): [Society for Vascular Surgery, 633 N. St. Clair, 22nd Floor, Chicago, Illinois, 60611](#)

Co.2 Point of Contact: [Lindsey, Adams, Health Policy Manager, Society for Vascular Surgery, ladams@vascularsociety.org, 202-](#)

NQF #0259 Hemodialysis Vascular Access Decision-making by surgeon to Maximize Placement of Autogenous Arterial Venous Fistula

787-1231-
Co.3 Measure Developer if different from Measure Steward: Society for Vascular Surgery, 633 N. St. Clair, 22nd Floor, Chicago, Illinois, 60611
Co.4 Point of Contact: Lindsey, Adams, Health Policy Manager, Society for Vascular Surgery, ladams@vascularsociety.org, 202-787-1231-
Co.5 Submitter: Lindsey, Adams, Health Policy Manager, Society for Vascular Surgery, ladams@vascularsociety.org, 202-787-1231-, Society for Vascular Surgery
Co.6 Additional organizations that sponsored/participated in measure development:
Co.7 Public Contact: Lindsey, Adams, Health Policy Manager, Society for Vascular Surgery, ladams@vascularsociety.org, 202-787-1231-, Society for Vascular Surgery

ADDITIONAL INFORMATION

<p>Workgroup/Expert Panel involved in measure development</p> <p>Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.</p>
<p>Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance</p> <p>Ad.3 Year the measure was first released: 2007</p> <p>Ad.4 Month and Year of most recent revision: 07, 2011</p> <p>Ad.5 What is your frequency for review/update of this measure?</p> <p>Ad.6 When is the next scheduled review/update for this measure?</p>
<p>Ad.7 Copyright statement:</p>
<p>Ad.8 Disclaimers:</p>
<p>Ad.9 Additional Information/Comments:</p>
<p>Date of Submission (MM/DD/YY): 10/05/2011</p>