

Measure Information Form

General Characteristics

<b>Measure ID:</b>	<i>(Auto-generated, when entered into QMIS by the Measures Manager)</i>
<b>Measure Name:</b>	ESRD- Vascular Access CPM I: Maximizing placement of AV Fistulae (AVF)
<b>Measure Description:</b>	Percentage of patients on maintenance hemodialysis during the last HD treatment of month using an autogenous AV fistula with two needles

**CMS contact:**

Thomas Dudley, MS, RN

**Consumer Care Need**

- Living With Illness

**Quality Domain**

- Effectiveness

**Type of Measure**

- Process

**Body System:**

Kidney/urinary tract  
ESRD

Variable Characteristics

**Measure Care Setting**

- Ambulatory Care
- Dialysis Facility

**Unit of Measurement**

Facility

Other

National: Stratified by ESRD Network (QMIS states this)

**Consensus Endorsement Process Status**

- Endorsed

**Endorsed Status Date**

November 15, 2007

## Technical Specifications

### Target Population

#### Age

##### Lower limit

- 18

##### Lower Span

-Years

#### Gender

- Both Males and Females

### Continuous Enrollment

NA

### Anchor Date

NA

### Effective Date

- 4/1/08- Please see Phase III ESRD Clinical Performance Measures (link below):

<http://www.cms.hhs.gov/CPMProject/Downloads/ESRDPhaseIIICPM04012008Final.pdf>

### Effective date basis

NA

### Payer Source

- Medicare

### Measure result reported as

- Positive

### Current Alignment with CMS

- NA

### CHI Compliant

- Yes

### Method of Data collection

- Electronic supplemented by medical record review

### Numerator statement

Patients who were on maintenance hemodialysis (HD) using an autogenous AV fistula with two needles at the last HD treatment of month

### Data source

- Administrative and medical record data
- Retrospective electronic/paper data collection
- Instrument data collection form

### Numerator Time Window

One month time period: Data collected for this ESRD CPM are monthly for the in-center hemodialysis patients. However, facilities implementing this measure may choose any time period.

**Denominator statement**

Patients on maintenance hemodialysis during the last HD treatment of month including patients on home hemodialysis

**Data source**

- Administrative and medical record data
- Retrospective electronic/paper data collection
- Instrument data collection form

**Denominator Time Window**

One Month

**Exclusion Criteria**

Patients on acute hemodialysis, peritoneal dialysis, or patients <18 years of age

**Data source**

- Administrative and medical record data
- Retrospective electronic/paper data collection
- Instrument data collection form

**Exclusion Criteria Time Window**

None

**History****Measure Status**

- Implemented/approved by CMS

**CMS Active Implementation Date**

- 2/1/09

**Measure Developer**

- CMS  
Contractor: Arbor Research/UM-KECC

**Intellectual property status**

- Public Domain

**Measure Source**

- Adapted from the original CPM "Maximizing placement of AV Fistulae (AVF)"

**CMS Final Approval Date**

- 4/1/08

**CMS Implementation Use**

- ESRD Disease Management
- ESRD Network Program
- Other  
Quality Improvement and Public Reporting

## Attachments

The **Measure Justification** is a required attachment

Depending on the measure contract (development/maintenance/reevaluation) and, if the measure is risk adjusted, some of the listed Measures Management System forms may be required:

- Comprehensive Measure Reevaluation

Other attachments

Comments:

## Measure Justification

<b>Measure ID</b>	<b>(Auto-generated when entered into QMIS)</b>
<b>Measure Name</b>	ESRD- Vascular Access CPM I: Maximizing placement of AV Fistulae (AVF)
<b>Completed by Initial &amp; Date</b>	CMS Measures Contractor; October 2, 2008
<b>CMS Active Implementation Date</b>	February 1, 2009
<b>Date of Last Review</b>	November 15, 2007

### Section I: Importance/Relevance

***Epidemiological relevance, Financial relevance, Policy relevance:***

***Epidemiological relevance***

Access dysfunction occurs in the majority of vascular accesses; however certain access types require fewer interventions than others. As cited by the K/DOQI guidelines (enclosed), native AV fistula accesses have the best 4- to 5- year patency rates and require fewer interventions compared with other access types. According to the 2004 ESRD CPM Data, 37% of incident and 39% of prevalent patients were dialyzed with an AVF during their last hemodialysis session of the data collection period (2005 Annual Report of the ESRD CPM Project). This is significantly lower than the recommended K/DOQI guideline of a prevalent functional AVF placement rate of greater than 65% of patients.

In addition the previous CPM did not define AV Fistula access by the number of needles used as the access. The recommended measure will aggressively promote the increased use of AV Fistulas and will also clearly define what is being included in the measurement.

The recommended measure states that an arteriovenous fistula (AV fistula) should be in use with two needles as the access for greater than 65% of all chronic maintenance hemodialysis patients. The necessity of this measure is based on the benefits of using an AV fistula as opposed to either a graft or catheter. These benefits are seen in both patient clinical outcomes and in the cost of initiating hemodialysis.

Numerous studies demonstrate that the use of AV fistulas have the best 5-year patency rates and require the fewest interventions compared with other access types. A study using data from the US RDS showed that patients receiving dialysis through catheters or AV grafts have greater mortality risk than patients dialyzed with fistula. Furthermore, infection-related deaths were significantly higher for catheters as compared to fistulas, in both diabetic and non-diabetic ESRD patients. Finally, the advantages of AV fistula over other accesses are clearly delineated in the NKF K/DOQI guidelines, summarized as follows: 1) AV fistulas have the lowest rate of thrombosis and require the fewest interventions, 2) cost of AV fistula use and maintenance is the lowest, 3) fistulas have the lowest rates of infection, and 4) Fistulas are associated with the highest survival and lowest hospitalization rates. Indeed, a number of

epidemiologic studies consistently demonstrate the reduced morbidity and mortality associated with greater use of AV fistulas for vascular access in maintenance hemodialysis.

**Financial relevance:**

It has been demonstrated that the use of AV grafts as compared to AV fistulae are associated with increased patient care costs. Based on Medicare claims data, the cost of initiating hemodialysis using a fistula was \$68,002, as compared to grafts (\$75,611) and catheters (\$86,927). Canadian data similarly support the finding of a lower cost for vascular access care in patients who initiate dialysis with an AV fistula as compared to those with a catheter or an AV graft.

2004, total Medicare costs for the ESRD program were \$20 billion. This represents approximately 8% of the total Medicare annual budget.

**Policy relevance:**

The measure that is being submitted for endorsement is part of the clinical performance measures (CPMs) that have been developed by the Centers for Medicare and Medicaid Services as a method to measure and report the quality of renal dialysis services provided under the Medicare program under title XVIII of the Social Security Act. The new measure will also improve upon the previous CPM used by defining AV Fistula access as in use with two needles.

The proposed measure does not distinguish between “incident” and “prevalent” patients and proposes a target of 65% for all patients, regardless of whether they are incident or prevalent patients. This distinction is not made because in order to ultimately reach a target of 65% in prevalent patients, the proportion of incident patients dialyzed with an AV fistula would have to be higher. This will allow the same measure to apply to all hemodialysis patients that receive chronic hemodialysis.

The measure also specifies that the target will only include patients on “chronic maintenance” hemodialysis. This definition clearly excludes patients who temporarily switch treatments from PD to HD. In addition the term “in use with two needles” provides an explicit definition of what is being measured, thus removing any ambiguity in completing the data collection form. Furthermore, the positive clinical impact associated with AV fistulas is based on its use, not just its placement.

**Section 2: Scientific Soundness**

**Explicit evidence base:**

Complete one literature citation for each guideline or study on which the measure is based, stating level of evidence and rating scheme used. A suggested format is below; another format may be used.

**Literature citation for clinical guideline**

Author Last Name/Organization: National Kidney Foundation  
Author First Name: Vascular Access Work Group  
Title of Chapter or Article: Clinical Practice Guidelines for Vascular Access  
Title of Book or Journal: American Journal of Kidney Disease  
Publication Date: July 2006  
Journal Volume and Number: 48  
Pages: S248 - 73  
Web link: [http://www.kidney.org/Professionals/kdoqi/guideline\\_upHD\\_PD\\_VA/index.htm](http://www.kidney.org/Professionals/kdoqi/guideline_upHD_PD_VA/index.htm)  
Level of Evidence and Rating Scheme:

The percent of all chronic hemodialysis patients who are dialyzed with an arteriovenous (AV) fistula (defined as the access in use with two needles) during their last hemodialysis treatment of the study period (*Evidence Level B*) Based on National Kidney Foundation Kidney Disease Outcomes Quality Initiative (KDOQI) Guideline: KDOQI Vascular Access Guideline 8.1.2.1 (*Evidence Level B*): Prevalent functional AVF placement rate of greater than 65% of patients.

The above guideline specifies a target of 65% or greater in prevalent patients whereas the measure revision proposes this target in all patients, regardless of whether they are incident or prevalent patients because in order to ultimately reach a target of 65% in prevalent patients, the proportion of incident patients dialyzed with an AV fistula would even be higher. The proposed measure is also consistent with the Fistula First Breakthrough Initiative <http://www.fistulafirst.org/>. In considering the feasibility of reaching the target of AVF use to greater than 65%, it is recommended that the following statement be added to the measure (*OPINION*): "Achievement of this target should occur incrementally based on annual goals set by the CMS ESRD network program. These incremental goals vary with region. For information specific to a given region, contact your local ESRD Network at [www.esrdnetworks.org](http://www.esrdnetworks.org)".

#### Literature citation for supporting evidence/study

Author Last Name/Organization:  
Author First Name:  
Title of Chapter or Article:  
Title of Book or Journal:  
Publication Date:  
Journal Volume and Number:  
Pages:  
Web link:  
Level of Evidence and Rating Scheme:

- Lee T, Barker J, Allon M. Needle infiltration of arteriovenous fistulae in hemodialysis: risk factors and consequences. *Am J Kidney Dis.* 2006 Jun;47(6):1020-6. B
- van der Linden J, Lameris TW, van den Meiracker AH, de Smet AA, Blankestijn PJ, van den Dorpel MA. Forearm venous distensibility predicts successful arteriovenous fistula. *Am J Kidney Dis.* 2006 Jun;47(6):1013-9. B
- Falk A. Maintenance and salvage of arteriovenous fistulas. *J Vasc Interv Radiol.* 2006 May;17(5):807-13. B
- Ohira S, Kon T, Imura T. Evaluation of primary failure in native AV-fistulae (early fistula failure). *Hemodial Int.* 2006 Apr;10(2):173-9. B
- Campos RP, Do Nascimento MM, Chula DC, Do Nascimento DE, Riella MC. Stenosis in hemodialysis arteriovenous fistula: evaluation and treatment. *Hemodial Int.* 2006 Apr;10(2):152-

61. C

- Jennings WC. Creating arteriovenous fistulas in 132 consecutive patients: exploiting the proximal radial artery arteriovenous fistula: reliable, safe, and simple forearm and upper arm hemodialysis access. Arch Surg. 2006 Jan;141(1):27-32 B
- Weyde W, Letachowicz W, Kusztal M, Porazko T, Krajewska M, Klinger M. Outcome of autogenous fistula construction in hemodialyzed patients over 75 years of age. Blood Purif. 2006;24(2):190-5. B
- Allen J, Oates CP, Chishti AD, Ahmed IA, Talbot D, Murray A. Thermography and colour duplex ultrasound assessments of arterio-venous fistula function in renal patients. Physiol Meas. 2006 Jan;27(1):51-60. C
- Planken RN, Keuter XH, Hoeks AP, Kooman JP, van der Sande FM, Kessels AG, Leiner T, Tordoir JH. Diameter measurements of the forearm cephalic vein prior to vascular access creation in end-stage renal disease patients: graduated pressure cuff versus tourniquet vessel dilatation. Nephrol Dial Transplant. 2006 Mar;21(3):802-6. C
- Tordoir JH, Keuter X, Planken N, de Haan MW, van der Sande FM. Autogenous options in secondary and tertiary access for haemodialysis. Eur J Vasc Endovasc Surg. 2006 Jun;31(6):661-6. B
- Dix FP, Khan Y, Al-Khaffaf H. The brachial artery-basilic vein arterio-venous fistula in vascular access for haemodialysis--a review paper. Eur J Vasc Endovasc Surg. 2006 Jan;31(1):70-9. B
- Song HH, Won YD, Kim YO, Yoon SA. Salvaging and maintaining non-maturing Brescia-Cimino haemodialysis fistulae by percutaneous intervention. Clin Radiol. 2006 May;61(5):404-9. C
- Sandhu C. Salvaging and maintaining non-maturing Brescia-Cimino haemodialysis fistulae by percutaneous intervention. Clin Radiol. 2006 May;61(5):402-3. C
- Malovrh M. Strategy for the maximal use of native arteriovenous fistulae for hemodialysis. ScientificWorldJournal. 2006 Jul 14;6:808-15. C

#### **Other aspects of scientific soundness:**

##### ***Reliability, Validity, and Adequacy of risk adjustment:***

Please see below link for the Reliability Report:

<http://www.cms.hhs.gov/CPMProject/Downloads/ESRD2006ReliabilityReport.pdf>

Please see the attached documents –

Frankenfield Diane L, Brier Michael E, Bedinger Marjorie R, Milam Roger A, Eggers Paul W, Cain Jeanette A, Aronoff George R., Frederick Pamela R. Evaluation Comparison of Urea Reduction Ratio and Hematocrit Data Reported in Different Data Systems: Results From the Center for Medicare & Medicaid Services and The Renal Network Inc. American Journal of Kidney Diseases. 2003 Feb;41(2):433-441

Rocco Michael V., Frankenfield Diane L., Hopson Sari D., McClellan William M. Relationship between Clinical Performance Measures and Outcomes among Patients Receiving Long-Term Hemodialysis. Annals of Internal Medicine. 2006;145:512-519

##### ***Adequacy of risk adjustment***

Risk adjustment is not applicable for this measure.

### **Section 3: Usability/Actionability**

***Provides actionable decision support, Message is clear to recipient, Operational relevance***

The revised CPM offers a clear and unambiguous message and is a simplification of the prior CPM. Simplifying the measure to apply to all patients without differentiation between prevalent and incident hemodialysis patients further increases the usability and actionability of this measure, since setting of targets is clearer and tracking of the measure is easier. Furthermore, the measure is believed to have operational relevance in that it is under control of the dialysis provider once the hemodialysis patient is part of the dialysis program, and in fact, the measure can be incorporated into a quality improvement program.

*Please see below link for the Annual Report.*

<http://www.cms.hhs.gov/CPMProject/Downloads/ESRD2006AnnualReport.pdf>

## Section 4: Feasibility

*Specifications are well-defined, Reasonable burden of data collection, Minimum distortion*

Administrative and Medical Record data is used.

There are no potential barriers to retrieving data necessary for the measure, and there are no data availability issues.

### **Approximate time for data collection,**

FOR ALL MEASURES TOTAL IN THE ESRD DIALYSIS FACILITY MEASURES SET: Approximately 30 minutes for data abstraction, less if the patient's medical record has not been sent to offsite storage. This is the time estimate if all of the data elements are manually abstracted. However, for those facilities that are owned by Large Dialysis Organizations (LDO's), a majority of the data elements are submitted electronically from the LDO's corporate database to CMS. Only a few if any elements are abstracted manually by facility staff, so their time for data abstraction is reduced considerably.

CMS is in the process of implementing a web-based data collection system called **CrownWeb** for the measures; however, at this time CMS has not assessed the cost and administrative burden of using CrownWeb by dialysis facilities. CrownWeb is scheduled to be implemented early 2009.

Comprehensive Reevaluation

<i>Measure ID</i>	(Auto-generated when entered into QMIS)
<b>Measure Set:</b>	<b>Vascular Access</b>
<b>Measure Name:</b>	ESRD- Vascular Access CPM I: Maximizing placement of AV Fistulae (AVF)
<b>Measure Description:</b>	Percentage of patients on maintenance hemodialysis during the last HD treatment of month using an autogenous AV fistula with two needles
<b>CMS GTL/PO:</b>	Thomas Dudley, MS, RN

Version Changes

**Summarize what has changed in this version?**

There are three key modifications to this CPM. First, the increase in target for the use of AV fistula to greater than 65%; second, removing the differentiation between incident and prevalent patients in the achievement of this target; and third, the incorporation of the concept of AV fistula “in use” for chronic maintenance hemodialysis rather than simply requiring the placement of the fistula. The new measure improves upon the previous CPM by defining AV Fistula access as in use with two needles. The previous CPM did not define AV Fistula access by the number of needles used as the access. The recommended measure will aggressively promote the increased use of AV Fistulas and will also clearly define what is being included in the measurement. The measure also specifies that the target will only include patients on “maintenance” hemodialysis. This definition clearly excludes patients who temporarily switch treatments from PD to HD. In addition the term “in use with two needles” provides an explicit definition of what is being measured, thus removing any ambiguity in completing the data collection form. Furthermore, the positive clinical impact associated with AV fistulas is based on its use, not just its placement.

**Date of review** (NQF approval date(s))  
November 15, 2007

**I. Summary of Current Performance Data Analysis on Each Measure—(measure data as submitted to NQF).**

Attach charts, graphs, or tables, as directed by CMS, that summarize the performance of the measure since it was initially used by CMS (ideally) or at least since it was last evaluated (either at measure inception or previous comprehensive evaluation).

<http://www.cms.hhs.gov/CPMProject/Downloads/ESRD2006AnnualReport.pdf>

## II. Summary of Analysis of the Comments and Questions Received Going into the TEP and during the NQF comment period:

- A.Importance
- B.Scientific Acceptability
- C.Feasibility
- D.Usability

<http://www.cms.hhs.gov/CPMProject/Downloads/ESRDTEPFinalReport05212008.pdf>

## III. Environmental scan to identify relevant scientific or other information published since the last time the measure was evaluated.

Document all relevant publications found, with a clear indication of:

- A.The type of information
  - B.The level of evidence
  - C.The relevant Web address (if the article is accessible via the Web)
  - D.A brief synopsis of the information and its relevance to the Comprehensive Reevaluation
    - Example #1 (for new guidelines): “ACC HF guidelines now consider ARBs to be equivalent to ACEIs.”
    - Example #2 (for a study on antibiotics): “Study shows increase in inappropriate use of antibiotics in ER patients since measure was implemented.”
- **Lee T, Barker J, Allon M. Needle infiltration of arteriovenous fistulae in hemodialysis: risk factors and consequences. Am J Kidney Dis. 2006 Jun;47(6):1020-6. B**
  - **van der Linden J, Lameris TW, van den Meiracker AH, de Smet AA, Blankestijn PJ, van den Dorpel MA. Forearm venous distensibility predicts successful arteriovenous fistula. Am J Kidney Dis. 2006 Jun;47(6):1013-9. B**
  - **Falk A. Maintenance and salvage of arteriovenous fistulas. J Vasc Interv Radiol. 2006 May;17(5):807-13.B**
  - **Ohira S, Kon T, Imura T. Evaluation of primary failure in native AV-fistulae (early fistula failure).Hemodial Int. 2006 Apr;10(2):173-9. B**
  - **Campos RP, Do Nascimento MM, Chula DC, Do Nascimento DE, Riella MC. Stenosis in hemodialysis arteriovenous fistula: evaluation and treatment. Hemodial Int. 2006 Apr;10(2):152-61. C**
  - **Jennings WC. Creating arteriovenous fistulas in 132 consecutive patients: exploiting the proximal radial artery arteriovenous fistula: reliable, safe, and simple forearm and upper arm hemodialysis access. Arch Surg. 2006 Jan;141(1):27-32 B**
  - **Weyde W, Letachowicz W, Kusztal M, Porazko T, Krajewska M, Klinger M. Outcome of autogenous fistula construction in hemodialyzed patients over 75 years of age. Blood Purif. 2006;24(2):190-5. B**
  - **Allen J, Oates CP, Chishti AD, Ahmed IA, Talbot D, Murray A. Thermography and colour duplex ultrasound assessments of arterio-venous fistula function in renal patients. Physiol Meas. 2006 Jan;27(1):51-60. C**
  - **Planken RN, Keuter XH, Hoeks AP, Kooman JP, van der Sande FM, Kessels AG, Leiner T, Tordoir JH. Diameter measurements of the forearm cephalic vein prior to vascular access creation in end-stage renal disease patients: graduated pressure cuff versus tourniquet vessel dilatation. Nephrol Dial Transplant. 2006 Mar;21(3):802-6. C**
  - **Tordoir JH, Keuter X, Planken N, de Haan MW, van der Sande FM. Autogenous options in secondary and tertiary access for haemodialysis. Eur J Vasc Endovasc Surg. 2006 Jun;31(6):661-6. B**
  - **Dix FP, Khan Y, Al-Khaffaf H. The brachial artery-basilic vein arterio-venous fistula in vascular access for haemodialysis--a review paper. Eur J Vasc Endovasc Surg. 2006 Jan;31(1):70-9. B**

- **Song HH, Won YD, Kim YO, Yoon SA.** Salvaging and maintaining non-maturing Brescia-Cimino haemodialysis fistulae by percutaneous intervention. Clin Radiol. 2006 May;61(5):404-9. C
- **Sandhu C.** Salvaging and maintaining non-maturing Brescia-Cimino haemodialysis fistulae by percutaneous intervention. Clin Radiol. 2006 May;61(5):402-3.C
- **Malovrh M.** Strategy for the maximal use of native arteriovenous fistulae for hemodialysis. ScientificWorldJournal. 2006 Jul 14;6:808-15. C

IV. A technical expert panel was convened:  Yes  No

If yes, date(s) of the meeting(s):

**Clinical-TEP:** September 18-19, 2006

**Data-TEP:** October 11-12, 2006

Briefly summarize the TEP recommendations here.

**C-TEP Recommendations:**

**Overview of Recommendations**

Summarized below is the current CPM I for vascular access, followed by the TEP's proposed revision(s) to the CPM:

*Current CPM I*

**Maximizing Placement of Arterial Venous Fistulae**

A primary arteriovenous fistula (AVF) should be the access for at least 50% of all new patients initiating hemodialysis. A native AVF should be the primary access for 40% of prevalent patients undergoing hemodialysis.

*Proposed Revised CPM I*

**Maximizing Use of Arterial Venous Fistulae**

An arteriovenous fistula (AVF) should be in use with two needles as the access for greater than 65% of all chronic maintenance hemodialysis patients.

**Numerator:**

Number of patients on maintenance hemodialysis (HD) using an AVF with two needles at last HD treatment of study period

**Denominator:**

All patients on maintenance hemodialysis during the last HD treatment of study period

**Exclusion criteria:**

Patients on acute hemodialysis, peritoneal dialysis, or patients  $\leq 18$  years of age

***Recommendations***

Achievement of this target should occur incrementally based on annual goals set by the CMS ESRD network program. These incremental goals vary with region. For information specific to a given region, contact your local ESRD Network at [www.esrdnetworks.org](http://www.esrdnetworks.org)

**D-TEP Recommendations:**

*CPM I:* Maximizing placement of arterial venous fistulae.

Current CPM I: A primary arteriovenous fistula (AVF) should be the access for at least 50% of all new patients initiating hemodialysis. A native AVF should be the primary access for 40% of prevalent patients undergoing hemodialysis.

Proposed CPM I Revision: An arteriovenous fistula (AVF) should be in use with two needles as the access for greater than 65% of all chronic maintenance hemodialysis patients.

**Comments:**

The panel discussed whether a second question was needed that asks if a catheter is in place. Fistula First has eight or nine categories for defining fistula/catheter use. CMS said that, as we move forward, the data being collected as a part of the Fistula First initiative also need to be collected for the CPMs. CMS also reported that the C-TEP that met in September to specifically review the vascular access CPMs were satisfied the proposed revisions cover this need.

**The panel raised several questions that they would like to ask the C-TEP members. The questions were as follows:**

- 1. Did the C-TEP want to know about to multiple accesses?**
- 2. Should “AV with graft” continue as a category?**
- 3. Should catheter and port still be reported together?**

The CTEP agreed with the D-TEP that it will be valuable to collect such information on vascular accesses other than the proposed “fistula with 2 needles”. In many cases, more than one access co-exist in a patient and it would be important to monitor the presence and potential impact, if any, of maintaining multiple accesses. Not only would it be valuable to monitor the presence of multiple accesses for tracking CPM measures, it would also be useful information for the Fistula First Initiative. In particular, it would be important to better define and understand the population of patients in whom AV fistulas are not used as long-term hemodialysis access. The data collection forms were modified to incorporate the D-TEP suggestions.

**V. If any of the codes used in the technical specifications have changed since the last measure update or comprehensive reevaluation, specify the change(s) with an explanation of its impact on the measure.**

NA

**VI. If material<sup>1</sup> changes to the measure have occurred — i.e., wording, data elements, time periods, abstraction instructions, etc. – document them here. If material changes were made to the measure, was the measure tested?**

Yes       No

If yes, indicate the results of the testing.

---

<sup>1</sup> A **material change** is one that changes the intended meaning of the measure or the strength of the measure in terms of measure evaluation criteria. NQF’s process for an ad hoc expedited review will be triggered at any point when the measure developer make material changes to the measure construct (including the numerator, denominator, and exclusions) or measure logic. The timing of the ad hoc review will depend on whether there is an accompanying safety concern. If changes to the measure are deemed appropriate:

- Would a change in the measure result in statistical discontinuity from the current measurement baseline?
- Would a change in the measure significantly impact current processes and the burden for data collection, analysis, and reporting?
- Would the proposed change unintentionally result in the modification of a current clinical or administrative practice?

Measure Contractor Recommended Disposition	
Measure contractor recommended disposition of the measure	<input type="checkbox"/> <b>Retain</b>
	Effective Date of Action
	<input checked="" type="checkbox"/> <b>Revise</b> (as described above)
	2/09, pending CROWNWeb implementation
	<input type="checkbox"/> <b>Replace</b>
<input type="checkbox"/> <b>Rotate</b>	
<input type="checkbox"/> <b>Retire</b>	
Rationale for recommendation	<p>The advantages of AV fistula over other accesses are clearly delineated in the NKF KDOQI guidelines, summarized as follows: 1) AV fistulas have the lowest rate of thrombosis and require the fewest interventions, 2) cost of AV fistula use and maintenance is the lowest, 3) fistulas have the lowest rates of infection, and 4) Fistulas are associated with the highest survival and lowest hospitalization rates. Indeed, a number of epidemiologic studies consistently demonstrate the reduced morbidity and mortality associated with greater use of AV fistulas for vascular access in maintenance hemodialysis. The revision of the prior version of this CPM to the one proposed here offers a clear and unambiguous message and is a simplification of the prior CPM. Simplifying the measure to apply to all patients without differentiation between prevalent and incident hemodialysis patients further increases the usability and actionability of this measure, since setting of targets is clearer and tracking of the measure is easier. Finally, the aggressive policy for increasing AV fistula use is consistent with the U.S.'s overall goal of improving ESRD outcomes, as demonstrated by the Fistula First Breakthrough Initiative and the goals stated by the ESRD network program.</p>
Effective date basis	<input type="checkbox"/> Discharges <input type="checkbox"/> Admissions <input type="checkbox"/> Service Date <input type="checkbox"/> Other:
Recommended by	Name: Date:

CMS Role	
CMS decision for measure disposition	<input type="checkbox"/> <b>Retain</b>
	Effective Date of Action
	<input type="checkbox"/> <b>Revise</b>
	<input type="checkbox"/> <b>Replace</b>
	<input type="checkbox"/> <b>Rotate</b>
<input type="checkbox"/> <b>Retire</b>	
<input type="checkbox"/> <b>Approved as recommended.</b>	
Comments about decision	
Approved by	Name: Date: