



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 #: 2704

Corresponding Measures:

De.2. Measure Title: Minimum Delivered Peritoneal Dialysis Dose

Co.1.1. Measure Steward: Centers for Medicare & Medicaid Services

De.3. Brief Description of Measure: Percentage of patient months for adult and pediatric patients whose delivered peritoneal dialysis dose was a weekly Kt/Vurea (dialytic + residual) ≥ 1.7 (adult, ≥ 18) or ≥ 1.8 (pediatric, < 18).

1b.1. Developer Rationale: Evaluation of PD adequacy every four months for adults is critical to ensure timely dose adjustment as needed, and adequate dialysis doses (Kt/Vurea > 1.7 for adult patients and Kt/Vurea > 1.8 for pediatric patients) have been linked to improved patient outcomes. Therefore, this measure is needed to ensure frequent adequacy measurement and adequate dialysis dosing. Studies have shown a Kt/V of 1.8/week or greater in adult PD patients was associated with better serum albumin levels [1] and improved survival [2]. The ADEMEX did not show clinical benefit in weekly Kt/V doses exceeding 1.7/week in adult CAPD patients [1]. Pediatric PD adequacy targets should be no lower than existing adult PD adequacy targets since generally, pediatric patients' greater metabolic demands require higher adequacy targets in terms of small solute clearance. No equivalent large scale clinical trials have been conducted in the pediatric peritoneal dialysis population but smaller scale observational studies support the association between delivered peritoneal dialysis dose and patient outcomes including the potential for improved growth [3].

Rationale for Kt/V Combined Measures (including #2704)

CMS submitted four individual dialysis adequacy measures for NQF maintenance or new endorsement (#0249, #1423, #0318, #2706). 0249 and 0318 have been endorsed since 2008, 1423 since 2011, while 2706 is a new pediatric PD adequacy measure. In conjunction with these individual adult and pediatric measures, CMS also submitted three measures (#2703, #2704, #2705) that are comprised of the constituent individual HD and PD adult and pediatric measures, as described in the documentation and at the in-person Steering Committee meeting May 6 -7. These seven measures assess dialysis adequacy based on the respective Kt/V thresholds which are based on clinical guidelines, published research, and TEP recommendations as provided in the evidence submission:

- For hemodialysis patients, all ages (0249, 1423, 2703): $\text{spKt/V} > 1.2$ (calculated from the last measurement of the month)
- For pediatric (age < 18 years) peritoneal dialysis patients: Kt/Vurea > 1.8 (dialytic + residual, measured within the past six months)
- For adult (age ≥ 18 years) peritoneal dialysis patients: Kt/Vurea > 1.7 (dialytic + residual, measured within the past four months)

The primary rationale for the combined measures is to make more facilities eligible for public reporting of these metrics by meeting the >11 eligible patients restriction. For public reporting on Dialysis Facility Compare (DFC) and the ESRD Quality Incentive Program (QIP), a facility has to treat at least 11 qualifying patients for each measure in order to receive a score on that measure. The 11 patient requirement is anchored in HHS policy, related to small cell sizes to protect identification of patients and release of protected health information. An additional reason is the need for sufficient data to achieve reliability of a measure calculation for <11 patients. We recognize there is no published evidence describing use of the combined subpopulation and modality measures. However, each component measure has strong evidence support from literature and each also reflects consensus guideline recommendations. Combining these established consensus measures to counter an unintended consequence of the application of federal protected health information regulations should not require additional scientific justification beyond what already exists.

In the case of dialysis adequacy, CMS found that a significant number of facilities that have <11 PD patients, or <11 pediatric patients would be included in the new combined measures but excluded from the individual measure, leading to the systematic exclusion of these facilities from assessment on these measures because of the reporting requirements.

To account for this, CMS proposed the three new measures that assess dialysis adequacy by modality that includes both adult and pediatric populations (#2703, #2704), and an overall measure of all adult and pediatric hemodialysis and peritoneal dialysis patients (#2705). CMS also seeks maintenance endorsement of the individual measures previously endorsed, based on the same level of evidence presented for those measures. It is CMS's intention to eventually retire the individual measures once the combined measures are endorsed and implemented.

1. Paniagua R, Amato D, Vonesh E, et al. "Effects of increased peritoneal clearances on mortality rates in peritoneal dialysis: ADEMEX, a prospective, randomized, controlled trial." *Journal of the American Society of Nephrology: JASN* (2002) 13:1307-20. PMID: 11961019.
2. Lo WK, Lui SL, Chan TM, et al. "Minimal and optimal peritoneal Kt/V targets: Results of an anuric peritoneal dialysis patient's survival analysis." *Kidney international* (2005) 67:2032-8. PMID: 15840054.
3. Rees L, Feather S, Shroff R. "Peritoneal Dialysis Clinical Practice Guidelines for Children and Adolescents." *British Association of Pediatric Nephrology* (2008).

S.4. Numerator Statement: Number of patient months in the denominator whose delivered peritoneal dialysis dose was a weekly Kt/Vurea (dialytic + residual) ≥ 1.7 (adult, ≥ 18 , measured in the past 4 months) or ≥ 1.8 (pediatric, <18 , measured in the past 6 months).

S.6. Denominator Statement: To be included in the denominator for a particular month, the patient must be on peritoneal dialysis for the entire month, have had ESRD for greater than 90 days at the beginning of the month, and must be assigned to the facility for the entire month.

S.8. Denominator Exclusions: Exclusions that are implicit in the denominator definition include

- 1) Patients not on peritoneal dialysis for the entire month
- 2) Patients who have had ESRD for <91 days
- 3) Patients not assigned to the facility for the entire month

There are no additional exclusions for this measure.

De.1. Measure Type: Outcome

S.17. Data Source: Claims (Only), Electronic Health Record (Only)

S.20. Level of Analysis: Facility

IF Endorsement Maintenance – Original Endorsement Date: Oct 02, 2015 **Most Recent Endorsement Date:** Oct 02, 2015

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?

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
[2704Evidence_revised.docx](#)

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

Please update any changes in the evidence attachment in red. Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. If there is no new evidence, no updating of the evidence

information is needed.

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 PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

IF a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and provide rationale for composite in question 1c.3 on the composite tab.

Evaluation of PD adequacy every four months for adults is critical to ensure timely dose adjustment as needed, and adequate dialysis doses (Kt/Vurea > 1.7 for adult patients and Kt/Vurea > 1.8 for pediatric patients) have been linked to improved patient outcomes. Therefore, this measure is needed to ensure frequent adequacy measurement and adequate dialysis dosing. Studies have shown a Kt/V of 1.8/week or greater in adult PD patients was associated with better serum albumin levels[1] and improved survival [2]. The ADEMEX did not show clinical benefit in weekly Kt/V doses exceeding 1.7/week in adult CAPD patients [1]. Pediatric PD adequacy targets should be no lower than existing adult PD adequacy targets since generally, pediatric patients' greater metabolic demands require higher adequacy targets in terms of small solute clearance. No equivalent large scale clinical trials have been conducted in the pediatric peritoneal dialysis population but smaller scale observational studies support the association between delivered peritoneal dialysis dose and patient outcomes including the potential for improved growth [3].

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- For adult (age >= 18 years) peritoneal dialysis patients: Kt/Vurea > 1.7 (dialytic + residual, measured within the past four months)

The primary rationale for the combined measures is to make more facilities eligible for public reporting of these metrics by meeting the >11 eligible patients restriction. For public reporting on Dialysis Facility Compare (DFC) and the ESRD Quality Incentive Program (QIP), a facility has to treat at least 11 qualifying patients for each measure in order to receive a score on that measure. The 11 patient requirement is anchored in HHS policy, related to small cell sizes to protect identification of patients and release of protected health information. An additional reason is the need for sufficient data to achieve reliability of a measure calculation for <11 patients. We recognize there is no published evidence describing use of the combined subpopulation and modality measures. However, each component measure has strong evidence support from literature and each also reflects consensus guideline recommendations. Combining these established consensus measures to counter an unintended consequence of the application of federal protected health information regulations should not require additional scientific justification beyond what already exists.

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3. Rees L, Feather S, Shroff R. "Peritoneal Dialysis Clinical Practice Guidelines for Children and Adolescents." *British Association of Pediatric Nephrology* (2008).

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 (4b) under Usability and Use.

Analysis of CROWNWeb and Medicare claims data from January to December 2013 indicated the mean percentage of patients with PD adequacy measurements that achieved the target at least once in four months (adult) and six months (pediatric) was 78.2% (SD=17.9%). Distribution: Min=0.0%, Max=100.0%. A description of the data is included in questions 1.1-1.7 under "Scientific Acceptability".

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.

N/A

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 (4b) under Usability and Use.

Disparity analyses were performed among the entire eligible population (n=46,307) to examine the difference in performance scores by sex, race, ethnicity, and age.

In particular, for each facility, the percent of patient-months by demographic group (sex, race, ethnicity, age) was calculated. Then, the facilities were divided into quintiles (Q1-Q5) based on the percentage of patient-months in the particular demographic category (i.e., a facility with percentage of females similar to the national median will be included in quintile 3). The top 20% of facilities in terms of rank, based on the percentages of females, were classified as Q5, while the bottom 20% of facilities were classified as Q1. Average (mean) performance for the measure was calculated for each quintile, and the means were examined for trend across quintiles (Q1-Q5). The Cochran-Armitage test for trend was performed to assess disparities in performance scores. All of the trend test results for each group across quintiles were statistically significant ($p < 0.0001$). The statistically significant test results imply that there are increasing (or decreasing) linear trends in performance scores as the respective percentages of demographic groups increase. While these differences appear to be statistically significant, we did not determine that they are clinically significant. In the absence of biological effects explaining these differences, risk adjustment for these factors would potentially mask disparities in care.

The mean performance scores for percent of patient-months with a weekly Kt/Vurea measurement in each quintile, by demographic group, are presented below. Males, non-Black, non-White, non-Hispanic, Age 18-64, are the respective reference categories.

Female (Q1=77.3%, Q2=78.7%, Q3=78.7%, Q4=77.6%, Q5=78.5%, $P<0.0001$)
White (Q1=78.6%, Q2=77.2%, Q3=77.4%, Q4=78.4%, Q5=79.3%, $P<0.0001$)
Black (Q1=79.8%, Q2=77.0%, Q3=77.5%, Q4=76.9%, Q5=79.6%, $P<0.0001$)
Hispanic (Q1=79.1%, Q2=80.8%, Q3=79.4%, Q4=76.8%, Q5=75.9%, $P<0.0001$)
Age \geq 65 (Q1=74.7%, Q2=78.6%, Q3=78.1%, Q4=78.6%, Q5=81.0%, $P<0.0001$)

Note: Statistics for Age<18 group are not available because most facilities have 0 pediatric patients.

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

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):

Renal, Renal : End Stage Renal Disease (ESRD)

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):

Populations at Risk, Populations at Risk : Veterans

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.)

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)

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)

No data dictionary Attachment:

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.

N/A

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).

Number of patient months in the denominator whose delivered peritoneal dialysis dose was a weekly Kt/Vurea (dialytic + residual)

≥ 1.7 (adult, ≥ 18 , measured in the past 4 months) or ≥ 1.8 (pediatric, <18 , measured in the past 6 months).

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).

Reporting months with weekly Kt/Vurea (dialytic + residual) ≥ 1.7 (adult, ≥ 18) or ≥ 1.8 (pediatric, <18) are counted in the numerator.

For adult patients, if no weekly Kt/Vurea value is reported for a given patient in the reporting month, the most recent peritoneal dialysis weekly Kt/Vurea value in the prior 3 months is applied to the calculation for that month.

For pediatric patients, if no weekly Kt/Vurea value is reported for a given patient in the reporting month, the most recent peritoneal dialysis weekly Kt/Vurea value in the prior 5 months is applied to the calculation for that month.

Missing, expired, and not performed are not counted as achieving the minimum weekly Kt/Vurea threshold.

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

To be included in the denominator for a particular month, the patient must be on peritoneal dialysis for the entire month, have had ESRD for greater than 90 days at the beginning of the month, and must be assigned to the facility for the entire month.

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).

A treatment history file is the data source for the denominator calculation used for the analyses supporting this submission. This file provides a complete history of the status, location, and dialysis treatment modality of an ESRD patient from the date of the first ESRD service until the patient dies or the data collection cutoff date is reached. For each patient, a new record is created each time he/she changes facility or treatment modality. Each record represents a time period associated with a specific modality and dialysis facility. CROWNWeb is the primary basis for placing patients at dialysis facilities and dialysis claims are used as an additional source. Information regarding first ESRD service date, death, and transplant is obtained from CROWNWeb (including the CMS Medical Evidence Form (Form CMS-2728) and the Death Notification Form (Form CMS-2746)) and Medicare claims, as well as the Organ Procurement and Transplant Network (OPTN) and the Social Security Death Master File.

To be included in the denominator for a particular reporting month, the patient must be on peritoneal dialysis for the entire month, have had ESRD for greater than 90 days at the beginning of the month, and must be assigned to the facility for the entire month.

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

Exclusions that are implicit in the denominator definition include

- 1) Patients not on peritoneal dialysis for the entire month
- 2) Patients who have had ESRD for <91 days
- 3) Patients not assigned to the facility for the entire month

There are no additional exclusions for this measure.

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.)

N/A

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.)

N/A

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 = Higher score

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

Denominator: For the reporting month, patients are included in the denominator if:

Patient modality is indicated as peritoneal dialysis during the entire month

Patient has had ESRD for greater than 90 days at the beginning of the month

Patient has been assigned to the facility for the entire month

Numerator: For the reporting month,

Adult patients (≥ 18 years) from the denominator are included in the numerator if they have a weekly Kt/Vurea (dialytic + residual) ≥ 1.7

Pediatric patients (< 18 years) from the denominator are also included in the numerator if they have a weekly Kt/Vurea (dialytic + residual) ≥ 1.8

For adult patients, if no weekly Kt/Vurea value is reported for a given patient in the reporting month, the most recent peritoneal dialysis weekly Kt/Vurea value in the prior 3 months is applied to the calculation for that month.

For pediatric patients, if no weekly Kt/Vurea value is reported for a given patient in the reporting month, the most recent peritoneal dialysis weekly Kt/Vurea value in the prior 5 months is applied to the calculation for that month.

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

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

N/A

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.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

N/A

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

If other, please describe in S.18.

Claims (Only), Electronic Health Record (Only)

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 is collected.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

For the analyses supporting this submission, the measure is calculated using CROWNWeb as the primary data source. If a patient's data are missing in CROWNWeb, Medicare claims are used.

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)

No data collection instrument provided

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)

Dialysis Facility

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.)

N/A

2. Validity – See attached Measure Testing Submission Form

[2704_Testing_revised.docx](#)

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. (Do not remove prior testing information – include date of new information in red.)

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. (Do not remove prior testing information – include date of new information in red.)

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes SDS factors is no longer prohibited during the SDS Trial Period (2015-2016). Please update sections 1.8, 2a2, 2b2, 2b4, and 2b6 in the Testing attachment and S.14 and S.15 in the online submission form in accordance with the requirements for the SDS Trial Period. NOTE: These sections must be updated even if SDS factors are not included in the risk-adjustment strategy. If yes, and your testing attachment does not have the additional questions for the SDS Trial please add these questions to your testing attachment:

What were the patient-level sociodemographic (SDS) variables that were available and analyzed in the data or sample used? For example, patient-reported data (e.g., income, education, language), proxy variables when SDS data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate).

Describe the conceptual/clinical and statistical methods and criteria used to select patient factors (clinical factors or sociodemographic factors) used in the statistical risk model or for stratification by risk (e.g., potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of $p < 0.10$; correlation of x or higher; patient factors should be present at the start of care)

What were the statistical results of the analyses used to select risk factors?

Describe the analyses and interpretation resulting in the decision to select SDS factors (e.g. prevalence of the factor across measured entities, empirical association with the outcome, contribution of unique variation in the outcome, assessment of between-unit effects and within-unit effects)

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.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score)

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**.

ALL data elements are in defined fields in a combination of electronic sources

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 a PRO-PM, consider implications for both individuals providing PRO data (patients, service recipients, respondents) and those whose performance is being measured.

N/A

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*).

N/A

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	
Payment Program	

4a.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

N/A

4a.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?)

The measure is a combination of individual adult and pediatric Kt/V measures. The existing NQF endorsed adult PD Kt/V measure (#0318) is currently publicly reported, and the pediatric PD Kt/V measure is under NQF review, and has been finalized for PY2018 of the ESRD QIP.

4a.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.)

CMS will decide if and when this measure is publicly reported.

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.

4b. 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.

N/A

4c. 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).

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

N/A

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

4d1.1. 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.

4d1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

4d2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

4d2.2. Summarize the feedback obtained from those being measured.

4d2.3. Summarize the feedback obtained from other users

4d.3. Describe how the feedback described in 4d.2 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

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.

Yes

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

0318 : Delivered Dose of Peritoneal Dialysis Above Minimum

0321 : Adult Kidney Disease: Peritoneal Dialysis Adequacy: Solute

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

Pediatric Peritoneal Dialysis Adequacy: Achievement of Target Kt/V - developed by CMS

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?

No

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

Yes, the measure is harmonized with 0318 and the pediatric PD Kt/V measures. They all have the corresponding Kt/V thresholds (numerator) and corresponding denominator populations. In the last maintenance cycle in 2011, 0318 was harmonized with 0321. Since then 0318 has been revised. This measure is not harmonized with 0321, because missing values are not counted in the numerator, in order to prevent gaming of the measure.

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.)

It is anticipated that this proposed measure will allow for assessment of a larger population given that it applies to both adult and pediatric PD patients. Missing values are not counted in the numerator, in order to prevent gaming of the measure.

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.

No appendix Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare & Medicaid Services

Co.2 Point of Contact: Helen, Dollar-Maples, Helen.Dollar-Maples@cms.hhs.gov, 410-786-7214-

Co.3 Measure Developer if different from Measure Steward: University of Michigan Kidney Epidemiology and Cost Center

Co.4 Point of Contact: Casey, Parrotte, parrotte@med.umich.edu

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: 2015

Ad.3 Month and Year of most recent revision: 02, 2015

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? 02, 2016

Ad.6 Copyright statement: N/A

Ad.7 Disclaimers: N/A

Ad.8 Additional Information/Comments: July 2015:

Based on the discussion that took place at the NQF Steering Committee meeting, CMS has made the following revisions to the measure submission:

- The upper threshold for Kt/V values has been removed from the specifications
- The specifications were edited to provide more clear descriptions of the numerator, denominator, exclusions, and calculation

algorithm with respect to the constituent base measures included in this combined measure (NQF 0318 and NQF 2706 pertaining to the respective adult peritoneal dialysis and pediatric peritoneal dialysis populations). The specifications provide more detail on the interval of measurement (within the past 4 or 6 months, depending on patient age). These calculation clarifications are not material changes with respect to the documentation that the committee reviewed in May.

- The evidence form was revised to include the abstracts for the evidence listed in 1a.8.2.