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 #: 1454
Corresponding Measures:
De.2. **Measure Title:** Proportion of patients with hypercalcemia
Co.1.1. **Measure Steward:** Centers for Medicare & Medicaid Services
De.3. **Brief Description of Measure:** Percentage of adult dialysis patients with a 3-month rolling average of total uncorrected calcium (serum or plasma) greater than 10.2 mg/dL (hypercalcemia)
1b.1. **Developer Rationale:** The hypercalcemia measure was developed in 2010 based on the recommendations of a clinical TEP's consideration of the multiple large, risk-adjusted observational studies demonstrating a consistent relationship between presence of hypercalcemia and patient mortality. TEP members felt that while small, the population of patients with hypercalcemia was at increased risk of cardiovascular events and therefore the condition needs to be identified and appropriately treated. The TEP agreed that therapy should be focused on preventing the development of a sustained serum calcium greater than 10.2 mg/dL.

The measure was re-evaluated by a second clinical TEP in 2013. The 2013 TEP identified additional observational studies supporting the measure and affirmed their agreement with the measure's focus as a safety measure, emphasizing avoidance of hypercalcemia to prevent adverse clinical consequences. Given both the 2010 TEP and 2013 TEP recommendations, and the additional evidence cited in the current NQF submission, we maintain its importance as a clinical intermediate outcome and patient safety measure.

We acknowledge the lack of interventional trials supporting a specific threshold. However, the number of large, risk-adjusted observational studies with consistent direction of association between hypercalcemia and mortality cannot be ignored. Given this, several committee reviewers agreed with the prior TEPs' opinions that the measure represented an appropriate safety-net.

As an additional concern, the Protecting Access to Medicare Act of 2014 mandated the implementation of conditions treated through oral-only medications in the ESRD Quality Incentive Program (QIP) as a safety measure against over-use of oral-only medications following changes to the ESRD PPS Bundle payment. We believe Congress recognized the need for more safety measures in the ESRD program, particularly in the area of drug overuse, following similar concerns for the use of ESAs in treating anemia in the same population. This hypercalcemia measure is the only measure of which we are aware that meets these requirements and the NQF criteria. Other relevant measures have been presented to NQF in the past, but have not received endorsement due to a lack of evidence.

S.4. **Numerator Statement:** Number of patient-months in the denominator with 3-month rolling average of total uncorrected serum (or plasma) calcium greater than 10.2 mg/dL
S.6. **Denominator Statement:** Number of patient-months among adult (greater than or equal to 18 years old) in-center hemodialysis, home hemodialysis, or peritoneal dialysis patients under the care of the dialysis facility for the entire reporting month who have had ESRD for greater than 90 days.
S.8. **Denominator Exclusions:** Exclusions that are implicit in the denominator definition include all patients who have not been in the facility the entire reporting month (transient patients), and patients who have had ESRD for <91 days. There are no additional exclusions for this measure.

De.1. **Measure Type:** Outcome
S.17. **Data Source:** Electronic Health Records
S.20. **Level of Analysis:** Facility

IF Endorsement Maintenance – Original Endorsement Date: Aug 16, 2011 **Most Recent Endorsement Date:** Aug 16, 2011

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?** N/A

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
1454_Evidence_Hypercalcemia_revised.docx
1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?
Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

1b. Performance Gap

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

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

1b.1. **Briefly explain the rationale for this measure** *(e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)*
If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.
The hypercalcemia measure was developed in 2010 based on the recommendations of a clinical TEP's consideration of the multiple large, risk-adjusted observational studies demonstrating a consistent relationship between presence of hypercalcemia and patient mortality. TEP members felt that while small, the population of patients with hypercalcemia was at increased risk of cardiovascular events and therefore the condition needs to be identified and appropriately treated. The TEP agreed that therapy should be focused on preventing the development of a sustained serum calcium greater than 10.2 mg/dL.

The measure was re-evaluated by a second clinical TEP in 2013. The 2013 TEP identified additional observational studies supporting the measure and affirmed their agreement with the measure's focus as a safety measure, emphasizing avoidance of hypercalcemia to prevent adverse clinical consequences. Given both the 2010 TEP and 2013 TEP recommendations, and the additional evidence cited in the current NQF submission, we maintain its importance as a clinical intermediate outcome and patient safety measure.

We acknowledge the lack of interventional trials supporting a specific threshold. However, the number of large, risk-adjusted observational studies with consistent direction of association between hypercalcemia and mortality cannot be ignored. Given this, several committee reviewers agreed with the prior TEPs' opinions that the measure represented an appropriate safety-net.

As an additional concern, the Protecting Access to Medicare Act of 2014 mandated the implementation of conditions treated through oral-only medications in the ESRD Quality Incentive Program (QIP) as a safety measure against over-use of oral-only medications following changes to the ESRD PPS Bundle payment. We believe Congress recognized the need for more safety measures in the ESRD program, particularly in the area of drug overuse, following similar concerns for the use of ESAs in treating anemia in the same population. This hypercalcemia measure is the only measure of which we are aware that meets these requirements and the NQF criteria. Other relevant measures have been presented to NQF in the past, but have not received endorsement due to a lack of evidence.

1b.2. **Provide performance scores on the measure as specified (current and over time) at the specified level of analysis**. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data*

source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.
Among the 5,973 facilities that have at least one eligible patient, we generated the following statistics of their performance scores using the January – December 2013 CROWNWeb clinical data. Percentages reflect patient-months: mean (SD)=2.1% (3.2%); min=0%; max=92%; 25th percentile=0.3%; 50th percentile=1.2%; 75th percentile=2.9%.

During the recent DFC performance period, 1538 facilities had 0% of patients with hypercalcemia, 1494 facilities had 1% of patients with hypercalcemia, 889 facilities had 2%, 594 had 3%, and 1360 facilities had 4% or more of their patients with hypercalcemia.

The distribution demonstrates the success of many facilities in their ability to achieve extremely low rates of hypercalcemia, as over 3000 facilities have 1% or less patients with hypercalcemia. However, when one looks at the average national performance of 2%, they may interpret that statistic as demonstrating the absence of a performance gap for this safety measure. That interpretation ignores the highly skewed distribution of facility performance for this safety measure. For this safety measure, the performance gap is clearly demonstrated by comparing the 1360 US dialysis facilities (23% of the total reported facilities) with 4% or greater patients with hypercalcemia to the majority of dialysis facilities that achieve extremely low hypercalcemia rates. We maintain that the measure is important for safety monitoring, as nearly one-fourth of US dialysis facilities are relatively poor at preventing hypercalcemia, an intermediate outcome consistently associated with poorer patient survival and clearly influenced by providers' bone and mineral disease management practices.

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 (4b1) under Usability and Use.*
Disparity analyses were performed among the entire eligible adult population (n=482,979) 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 the results for each group across quintiles were statistically significant (p<0.0001), which imply that there are statistically significant changes in performance scores depending on facility level quintile by population group for sex, race, ethnicity, and age. Based on absolute achievement, we believe the differences across race quintiles are also not clinically important, although the relative change from quintile 1 to quintile 5 is a relatively large change. We believe that the absolute value for quintile 5 is still such a small fraction of the population that it is not clinically meaningful at present.
The mean performance scores for percentage of patients with hypercalcemia in each quintile, by demographic group, are presented below.

Facility Level Quintiles by Population Group (Quintile 1-5):

Female (Q1=2.1%; Q2=2.0%; Q3=2.0%; Q4=2.2%; Q5=2.3%; P<0.0001)
White (Q1=2.7%; Q2=2.2%; Q3=2.1%; Q4=1.9%; Q5=2.0%; P<0.0001)
Black (Q1=1.9%; Q2=1.9%; Q3=1.9%; Q4=2.3%; Q5=2.7%; P<0.0001)
Hispanic (Q1=2.4%; Q2=2.4%; Q3=2.0%; Q4=2.0%; Q5=2.0%; P<0.0001)
Age>=65 (Q1=2.6%; Q2=2.3%; Q3=2.1%; Q4=1.9%; Q5=1.9%; P<0.0001)

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**
N/A

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

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)*
Attachment:

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

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

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

S.3.2. **For maintenance of endorsement,** please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.
2015 Update Changes
This measure was last endorsed in 2011. For the 2015 update to the measure, we removed the denominator requirement for at

least one calcium measurement in the last 90 days. The removal of this restriction allows for the inclusion of patient-months with missing values in the denominator to minimize any incentive favoring non-measurement of serum calcium in the preceding three months.

This measure has also been revised to allow for reporting of either serum or plasma calcium values. This change was prompted by an NQF ad hoc review of another measure, the Measurement of Serum Phosphorus measure (#0255) to decide on the equivalence of serum or plasma values in the reporting of phosphorous. Based on the data provided to NQF demonstrating equivalence within CLIA established parameters, NQF recommended the measure be revised to include reporting of either serum or plasma phosphorous values, For the current maintenance of the hypercalcemia measure, CMS contacted the groups that requested that ad hoc review, and solicited supporting data comparing and establishing the equivalence of plasma and serum calcium. Those data are included in the appendix to this document.

2016 Annual Update Changes
For this annual update, we updated the numerator details to explicitly state that patients with missing or out of range total uncorrected serum or plasma calcium values are included in the numerator. This change is consistent with the intent of the measure and acts as a disincentive for gaming of the measure through non-reporting.

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 with 3-month rolling average of total uncorrected serum (or plasma) calcium greater than 10.2 mg/dL

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).
If there are multiple calcium measurements during the month, the last value will be used for the calculation. Calcium measurements can be based on either serum or plasma calcium. Missing values are included in the numerator calculation if uncorrected serum or plasma calcium values are missing for all three months. As long as a non-missing value is available in the reporting month or the 2 months prior, a 3-month average will be calculated.

S.6. **Denominator Statement** *(Brief, narrative description of the target population being measured)*
Number of patient-months among adult (greater than or equal to 18 years old) in-center hemodialysis, home hemodialysis, or peritoneal dialysis patients under the care of the dialysis facility for the entire reporting month who have had ESRD for greater than 90 days.

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).
N/A

S.8. **Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*
Exclusions that are implicit in the denominator definition include all patients who have not been in the facility the entire reporting month (transient patients), and patients who have had ESRD for <91 days. 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 = Lower score

S.14. **Calculation Algorithm/Measure Logic** (*Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)*
Patients are included in the denominator if they are >= 18 years old as of the first day of the three month study period, are ESRD for more than 90 days as of the first day of the most recent month of the study period, and are under the care of the facility for at least 30 days as of the last day of the most recent month of the study period.

The patient's age will be determined by subtracting the patient's date of birth from the first day of the most recent month of the study period. The patient's time on dialysis will be determined by subtracting the patient's date regular Chronic Dialysis Began from the first day of the most recent month of the study period. Patients on dialysis are determined as follows: Primary Type of Dialysis is Hemodialysis, Home Hemodialysis, CAPD or CCPD in the most recent month of the study period. Patients under the care of the facility for at least 30 days are determined as follows: if the discharge date from the specified facility is missing/null or is after the last day of the most recent month of the study period, then the patient's time under the care of the facility is calculated from the admit date to the last day of the most recent month of the study period; if the discharge date is prior to the last day of the most recent month of the study period, the patient is excluded from the calculation.

The numerator will be determined by counting the patient months in the denominator that meet the following criteria: the average total uncorrected serum or plasma calcium over the 3-month study period is greater than 10.2 mg/dL or is missing for all three months. If there is more than one uncorrected serum or plasma calcium measurement within each month of the study period, the last value for the month shall be used for the calculation of the average. As long as a non-missing value is available in the reporting month or the 2 months prior, a 3-month average will be calculated.

S.15. **Sampling** *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*
IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.
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.)*
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.
Electronic Health Records

S.18. **Data Source or Collection Instrument** *(Identify the specific data source/data collection instrument (e.g. name of database,*

clinical registry, collection instrument, etc., and describe how data are collected.)
IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.
CROWNWeb

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)*
Post-Acute Care
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
1454_NQF_Testing_Hypercalcemia-635730047013199830.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. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

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

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

3. Feasibility

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

3a. Byproduct of Care Processes
For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. **Data Elements Generated as Byproduct of Care Processes.**
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition
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 electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS)

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

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

3c. Data Collection Strategy

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

3c.1. **Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.**
IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.
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)
Payment Program	Public Reporting Dialysis Facility Compare http://qa.medicare.gov/dialysisfacilitycompare/#

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

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

DFC:

Purpose: Dialysis Facility Compare helps patients find detailed information about Medicare-certified dialysis facilities. They can compare the services and the quality of care that facilities provide.

Geographic area: United States

Number of accountable entities: All Medicare-certified dialysis facilities are eligible for the measure, if they have at least 11 eligible patients (due to public reporting requirements). For the most recent DFC report, that was 6026 facilities.

Patients included: All patients who meet the requirements to be included in the measure.

QIP:
Purpose: The ESRD QIP will reduce payments up to 2% to dialysis facilities that do not meet or exceed certain performance standards. Hypercalcemia was adopted for the ESRD QIP for PY2016.

Geographic area: United States

Number of accountable entities: All Medicare-certified dialysis facilities who are eligible for the QIP, and have at least 11 eligible patients (due to public reporting requirements). For the most recent QIP report (which did not include hypercalcemia), this was 5410 facilities.

Patients included: All patients who meet the requirements to be included in the measure adopted for QIP.

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

4a1.3. **If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement.** (*Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.*)
N/A

4a2.1.1. **Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**
How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

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

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

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

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

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

Improvement

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

4b1. **Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)**
If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

The public reporting of performance results for this measure are intended decrease a patient's risk of cardiovascular events and all-cause mortality attributed to hypercalcemia, given it has an adverse association with these events. Evidence suggests that calcium concentrations >10.2 mg/dL place the patient at increased risk of poor outcomes.

4b2. Unintended Consequences

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

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

N/A

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

5. Comparison to Related or Competing Measures

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

5. Relation to Other NQF-endorsed Measures

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

No

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

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

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;
OR
The differences in specifications are justified

5a.1. **If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):**
Are the measure specifications harmonized to the extent possible?

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

5b. Competing Measures
The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);
OR
Multiple measures are justified.

5b.1. **If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):**
Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Appendix

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

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@cms.hhs.gov

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:**
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:**
Ad.7 **Disclaimers:**

Ad.8 **Additional Information/Comments:**