

## MEASURE INFORMATION FORM

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***Project Title:***

Dialysis Facility Compare – Mineral Metabolism

***Project Overview:***

The Centers for Medicare & Medicaid Services (CMS) has contracted with the University of Michigan Kidney Epidemiology and Cost Center (UM-KECC) to calculate and report quality measures for public reporting on Dialysis Facility Compare. The contract name is ESRD Quality Measure Development, Maintenance, and Support. The contract number is HHSM-500-2013-13017I.

***Date:*** Information included was submitted to NQF during the December 2016 annual update. This information is not yet reported on Dialysis Facility Compare.

## ***Measure Name***

Proportion of patients with hypercalcemia

## ***Descriptive Information***

### **Measure Name (Measure Title De.2.)**

Proportion of patients with hypercalcemia

### **Measure Type De.1.**

Intermediate Outcome

### **Brief Description of Measure De.3.**

Percentage of adult dialysis patients (Medicare and non-Medicare patients) with a 3-month rolling average of total uncorrected calcium (serum or plasma) greater than 10.2 mg/dL (hypercalcemia)

### **If Paired or Grouped De.4.**

N/A

### **Subject/Topic Areas De.5.**

Renal, Renal: End Stage Renal Disease (ESRD)

### **Crosscutting Areas De 6.**

N/A

## ***Measure Specifications***

### **Measure-specific Web Page S.1.**

N/A

### **If This Is an eMeasure S.2a.**

N/A

### **Data Dictionary, Code Table, or Value Sets S.2b.**

N/A

### **For Endorsement Maintenance S.3.**

#### 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.

### **Numerator Statement S.4.**

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

### **Time Period for Data S.5.**

3 months (reporting month and previous 2 months)

### **Numerator Details S.6.**

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.

**Denominator Statement S.7.**

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.

**Target Population Category S.8.**

Populations at Risk

**Denominator Details S.9.**

N/A

**Denominator Exclusions (NQF Includes “Exceptions” in the “Exclusion” Field) S.10.**

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.

**Denominator Exclusion Details (NQF Includes “Exceptions” in the “Exclusion” Field) S.11.**

N/A

**Stratification Details/Variables S.12.**

N/A

**Risk Adjustment Type S.13.**

No risk adjustment or risk stratification

**Statistical Risk Model and Variables S.14.**

N/A

**Detailed Risk Model Specifications S.15.**

N/A

**Type of Score S.16.**

Rate/proportion

**Interpretation of Score S.17.**

Better quality = Lower score

**Calculation Algorithm/Measure Logic S.18.**

Patients are included in the denominator if they are  $\geq 18$  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 three month 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 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.

**Calculation Algorithm/Measure Logic Diagram URL or Attachment S.19.**

No diagram provided

**Sampling S.20.**

N/A

**Survey/Patient-Reported Data S.21.**

N/A

**Missing Data S.22.**

N/A

**Data Source S.23.**

Electronic Clinical Data

**Data Source or Collection Instrument S.24.**

CROWNWeb

**Data Source or Collection Instrument (Reference) S.25.**

No data collection instrument provided

**Level of Analysis S.26.**

Facility

**Care Setting S.27.**

Dialysis Facility

**Composite Performance Measure S.28.**

N/A