Measure Information Form

1. **Measure Name/Title ([CMS Consensus-Based Entity [CBE] Measure Submission Form](#) ⬈, Measure Specifications sp.01)**

    Minimum spKt/V for Pediatric Hemodialysis Patients

2. **Descriptive Information**

2.1   Measure Type

  ☐ process
  ☐ outcome
  ☐ PRO-PM
  ☐ cost /resource use
  ☐ efficiency
  ☐ structure
  ☒ intermediate outcome
  ☐ population health
  ☐ composite
   ☐ process
   ☐ outcome
   ☐ other
  ☐ other

2.2   Brief Description of Measure (CMS CBE Measure Submission Form, Measure Specifications sp.02 and sp.06)

    Percentage of all in-center hemodialysis pediatric (< 18 years old) patient-months in the sample for analysis who were on ESRD treatment for 91 days or more and dialyzing greater than two and less than four times weekly whose delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a spKt/V > 1.2 during the study period (CBE ID #1423).

2.3   If Paired or Grouped (CMS CBE Measure Submission Form, Measure Specifications sp.03)

    N/A

3. **Measure Specifications**

3.1   Measure-Specific Webpage (CMS CBE Measure Submission Form, Measure Specifications sp.09)

    N/A

3.2   If this is an electronic clinical quality measure (eCQM) (CMS CBE Measure Submission Form, Measure Specifications sp.10)

N/A

3.3   Data Dictionary, Code Table, or Value Sets (CMS CBE Measure Submission Form, Measure Specifications sp.11)

The data elements used for this measure are listed below. A complete description of the data elements can be found at the ESRD section of QualityNet.org.

EQRS Data Elements:

- Unique Patient Identifier (UPI)
- Facility CCN
- Patient Date of birth
- Patient date of death
- Primary type of treatment ID (EQRS dialysis type)
- Number of dialysis sessions per week
- Medicare certified services offered
- Additional services offered (non-Medicare)
- Kt/V value
- Kt/V method
- First date of ESRD (see Section 3.1.2)

Claims Based Data Elements:

Note: Only Type of Bill (TOB) 72x claims are considered in the measure calculation.

- Claim related condition code
- Claim control number
- Claim-from date
- Claim through date
- Claim National Claims History (NCH) database daily process date
- Claim link number
- Claim occurrence date
- Claim occurrence code
- Claim CCN
- Claim value code D5
- Claim value amount
- Claim value sequence number

- Claim line institutional revenue center codes

- Claim line institutional revenue center date

- Patient health insurance claim number

- Patient date of death

- Patient date of birth

3.4   For an instrument-based measure (CMS CBE Measure Submission Form, Measure Specifications sp.23 and sp.24)

N/A

3.5   Updates since last submission (CMS CBE Measure Submission Form, Specifications: Maintenance Update spma.01 and spma.02)

No. There have been no changes to the measure specifications since the last endorsement in 2015.

3.6   Numerator Statement (CMS CBE Measure Submission Form, Measure Specifications sp.12)

Number of patient-months in denominator whose delivered dose of HD (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a spKt/V > 1.2. Kt/V must also be in range (spKt/V ≤ 5.0).

3.7   Numerator Details (CMS CBE Measure Submission Form, Measure Specifications sp.13)

Number of patient-months in denominator whose delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a spKt/V ≥ 1.2 and spKt/V ≤ 5.0.

- If a patient has multiple in-range Kt/V values in EQRS during a month, then the last reported value is selected.
- If an in-range value was not found in EQRS for the patient during the month then the last reported non-missing value reported on the last eligible Medicare claim for the patient during the month is selected (when available).
  - A claim is considered eligible if it was from an hemodialysis (in-center) patient who has ESRD for at least 91 days and is under 18 years old (as of the claim-from date), and the claim is neither a "frequent" dialysis claim nor an "infrequent" dialysis claim as described in Section 3.1.4.
  - When there were multiple claims in a month, the Kt/V value from the last eligible claim with an in-range (less than or equal to 5.0) and not expired Kt/V value is

selected. A Kt/V with an occurrence date from a previous month is defined as expired.

3.8   Denominator Statement (CMS CBE Measure Submission Form, Measure Specifications sp.14)

To be included in the denominator for particular month, a patient must be on hemodialysis for the entire month, must be <18 years old at the beginning of the month, must have had ESRD for greater than 90 days at the beginning of the month, must be on thrice weekly in-center hemodialysis during the month, and must be assigned to that facility for the entire month.

3.9   Denominator Details (CMS CBE Measure Submission Form, Measure Specifications sp.15)

A patient may only be assigned to one dialysis facility each month. For each patient, the dialysis provider at each point in time are identified primarily using data from EQRS, the Medical Evidence Form CMS-2728, and Medicare dialysis claims. Patient assignment to provider and modality (either HD or peritoneal dialysis [PD]) are both determined according to the information reported in the above-mentioned data sources.

For each reporting month, patients are required to have been indicated as treated by the facility for the complete month in order to be included in the denominator. If a patient transfers in or out of the facility, discontinues dialysis, recovers renal function, or dies anytime during the month, the entire patient-month is excluded. The number of sessions is not considered and the patient may not have received treatment at the facility for the entire month to be included. For example, if a patient is hospitalized or travels during the month, the patient may still be included in the facility's measure if they are indicated as the facility's patient that month according to the data as described above. Additionally, patients for whom the only evidence of dialysis treatment is the existence of Medicare claims are considered lost to follow-up and removed from a facility's analysis one year following the last claim, if there is no earlier evidence of transfer, recovery, or death. In other words, if a period of one year passes with neither Medicare dialysis claims nor EQRS information to indicate that a patient is receiving dialysis treatment, we consider the patient lost to follow-up, and do not include the patient in the calculations.

3.10   Denominator Exclusions (CMS CBE Includes "Exception" in the "Exclusion" Field) (CMS CBE Measure Submission Form, Measure Specifications sp.16)

Exclusions that are implicit in the denominator definition include:

- Patient-months for patients not assigned to the same facility for the entire month.
- Patients 18 years and older as of the first day of the reporting month if EQRS data are used or as of the claim from date if claims data are used.
- Patient-months for patients not on in-center hemodialysis the entire month.
- Patient-months for patients who are on ESRD treatment for less than 91 days as of the first of the month.
- Patient-months for patients not dialyzing greater than two and less than four times weekly.

There are no additional exclusions for this measure.

3.11   Denominator Exclusion Details (CMS CBE Includes "Exception" in the "Exclusion" Field) (CMS CBE Measure Submission Form, Measure Specifications sp.17)

N/A

3.12   Stratification Details/Variables (CMS CBE Measure Submission Form, Measure Specifications sp.18)

N/A

3.13   Risk Adjustment Type (CMS CBE Measure Submission Form, Measure Specifications sp.19)

☒ no risk adjustment or risk stratification
☐ stratification by risk category/subgroup
☐ statistical risk model
☐ other

3.14   Type of Score (CMS CBE Measure Submission Form, Measure Specifications sp.20)

☐ count
☒ rate/proportion
☐ ratio
☐ categorical (e.g., yes or no)
☐ continuous variable (CV) (e.g., an average)
☐ composite/scale
☐ other (specify) Click or tap here to enter text.

3.15   Interpretation of Score (CMS CBE Measure Submission Form, Measure Specifications sp.21)

Better quality = Higher score

3.16   Calculation Algorithm/Measure Logic (CMS CBE Measure Submission Form, Measure Specifications sp.22)

Denominator: For the reporting month, patients are included in the denominator if:
- Patient modality is indicated as hemodialysis during the entire month (in-center)
- Patient is dialyzing thrice weekly during the month
- Patient age as of the beginning of the reporting month is less than 18 years
- Patient has had ESRD for greater than 90 days at the beginning of the month
- Patient is assigned to the facility for the entire month

Numerator:

For the reporting month, patient months from the denominator are also included in the numerator if they have a spKt/V >=1.2 and less than 5.0. The last spKt/V value reported, not including out of range (<5.0), missing, expired, and not performed, is selected when multiple values are reported in the month.

3.17   Sampling (CMS CBE Measure Submission Form, Measure Specifications sp.25 and sp.26)

N/A

3.18   Survey/Patient-Reported Data (CMS CBE Measure Submission Form, Measure Specifications sp.27)

N/A

3.19   Data Source (CMS CBE Measure Submission Form, Measure Specifications sp.28)

☐ administrative data
☒ claims data
☐ paper patient medical records
☐ electronic patient medical records
☐ electronic clinical data
☒ registries
☐ standardized patient assessments
☐ patient-reported data and surveys
☐ non-medical data
☐ other—describe in 3.20 (CMS CBE Measure Submission Form, Measure Specifications sp.29)

3.20   Data Source or Collection Instrument (CMS CBE Measure Submission Form, Measure Specifications sp.29)

The measure is calculated using EQRS as the primary data source for the Kt/V values used to determine the numerator. If a patient's Kt/V data are missing in EQRS, Kt/V values from Medicare claims are used as an additional source for obtaining that information. Please see the attached data dictionary for a list of specific data elements that are used from each data source.

3.21   Data Source or Collection Instrument (Reference) (CMS CBE Measure Submission Form, Measure Specifications sp.30)

N/A

3.22   Level of Analysis (CMS CBE Measure Submission Form, Measure Specifications sp.07)

☐ individual clinician
☐ group/practice
☒ hospital/facility/agency
☐ health plan
☐ accountable care organization
☐ geographic population
☐ other (specify) Click or tap here to enter text.

3.23   Care Setting (CMS CBE Measure Submission Form, Measure Specifications sp.08)

☐ ambulatory surgery center
☐ clinician office/clinic
☐ outpatient rehabilitation
☐ urgent care – ambulatory
☐ behavioral health: inpatient
☐ behavioral health: outpatient
☒ dialysis facility
☐ emergency medical services/ambulance
☐ emergency department
☐ home health
☐ hospice
☐ hospital
☐ hospital: critical care
☐ hospital: acute care facility
☐ imaging facility
☐ laboratory
☐ pharmacy
☐ nursing home/skilled nursing facility (SNF)
☐ inpatient rehabilitation facility (IRF)
☐ long-term acute care
☐ birthing center
☐ no applicable care setting
☐ other (specify) Click or tap here to enter text.

3.24   Composite Measure (CMS CBE Composite Measure Submission Form ⬈, Measure Specifications sp.30)

N/A

REFERENCES

• Frankenfield DL, Neu AM, Warady BA, Watkins SL, Friedman AL, Fivush BA. Adolescent hemodialysis: results of the 2000 ESRD Clinical Performance Measures Project. *Pediatr Nephrol* 2002; 17:10-15.

• Leonard MB, Stablein DM, Ho M, Jabs K, Feldman HI. Racial and center differences in hemodialysis adequacy in children treated at pediatric centers: a North American Pediatric Renal Transplant Cooperative Study (NAPRTCS) report. *J Am Soc Nephrol*. 2004 Nov;15(11):2923-32.