Measure Information Form

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

Standardized Readmission Ratio (SRR) for dialysis facilities

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)

The SRR is defined to be the ratio of the number of index discharges from acute care hospitals that resulted in an unplanned readmission to an acute care hospital within 4-30 days of discharge for Medicare-covered dialysis patients treated at a particular dialysis facility, to the number of readmissions that would be expected given the discharging hospitals and the characteristics of the patients, as well as the national norm for dialysis facilities. Note that in this measure, "hospital" always refers to acute care hospital. SRR can be expressed as a risk-standardized rate, which is the product of the facility SRR and the national average readmission rate.

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)

Available in attached spreadsheet

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)

N/A

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

Each facility's observed number of hospital discharges that are followed by an unplanned hospital readmission within 4-30 days of discharge.

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

Index discharges are restricted to Medicare-covered hospitalizations for inpatient care at short-term acute care hospitals and critical access hospitals. Discharges from SNFs, long-term care hospitals (LTCHs), rehabilitation hospitals and PPS-exempt cancer hospitals - as well as those from separate dedicated units for hospice, rehabilitation and psychiatric care - are excluded. Potential readmissions are:

- Medicare-covered hospitalizations for inpatient care at short-term acute care hospitals and critical access hospitals.
- Classified as either a planned or unplanned admission according to planned readmission algorithm (see below for further discussion).

Note that hospitalizations where the patient dies on the date of discharge are included for consideration as potential readmissions.

The numerator for a given facility is the total number of index hospital discharges that are followed by unplanned readmissions within 4-30 days of discharge and that are not preceded by a "planned" readmission or other competing event that also occurred within 4-30 days of discharge (competing events include admissions to rehabilitation or psychiatric hospitals, death, transplant, loss to follow-up, withdrawal from dialysis, and recovery of renal function). If the first event during days 4-30 after discharge is an unplanned hospitalization, then the index discharge is classified as having a readmission. If the first event during days 4-30 is a planned hospitalization or other competing event, then the index discharge is classified as not having a readmission. A readmission is considered "planned" under three scenarios:

i) The patient undergoes a procedure that is always considered planned (e.g., kidney transplant) or has a primary diagnosis that always indicates the hospitalization is planned (e.g., maintenance chemotherapy).

ii) The patient undergoes a procedure that MAY be considered planned if it is not accompanied by an acute diagnosis. For example, a hospitalization involving a heart valve procedure accompanied by a primary diagnosis of diabetes would be considered planned, whereas a hospitalization involving a heart valve procedure accompanied by a primary diagnosis of acute myocardial infarction (AMI) would be considered unplanned.

iii) The readmission was to a rehabilitation, long-term, or psychiatric hospital.

This definition follows from the algorithm developed by Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE) for The Centers for Medicare and Medicaid Services 2018 All-Cause Hospital Wide Measure Updates and Specifications Report Hospital Level 30-Day Risk-Standardized Readmission Measure – Version 7.0.
https://www.qualitynet.org/files/5d0d375a764be766b010141f?filename=2018_Rdmsn_Updates%26Specs_Rpts.zip

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

The expected number of index discharges followed by an unplanned readmission within 4-30 days in each facility, which is derived from a model that accounts for patient characteristics, the dialysis facility to which the patient is discharged, and the discharging acute care or critical access hospitals involved.

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

Index discharges are attributed to the dialysis provider to which the patient is discharged at the end of the hospital stay. In other words, the facility to which the patient is discharged is held responsible for any unplanned readmissions occurring within 4-30 days of the index discharge, regardless of whether the patient is still being treated at the facility associated with the index discharge at the time of readmission.

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

Index Discharge Exclusions:

- Occurred at a non-acute care hospital.
- End in death.
- Are against medical advice.
- Include a primary diagnosis for certain types of cancer, mental health or rehab prosthesis
- Includes a revenue center code indicating rehabilitation.
- Occur after a patient's 12th admission in the calendar year (due to ECE exclusions, this exclusion occurs after a patients 7th discharge in calendar year 2020).
- Are from a PPS-exempt cancer hospital.
- Where the patient was not on dialysis and under care of a dialysis facility at discharge.
- It is followed within three days by any hospitalization (at acute care, long-term care, rehabilitation, or psychiatric hospital or unit), death, transplant, loss to follow-up, withdrawal from dialysis, or recovery of renal function.
- Are associated with an inpatient stay of 365 days or longer.

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

See attached code list

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

Below are details on the SRR's risk adjustors:

- **Sex**: Determine each patient's sex from multiple sources.
- **Age at Index Discharge**: Determined from the birth date provided in EQRS, Medicare Claims, and the Medical Evidence Form (CMS-2728). Three age spine variables centered at 60 were defined (0-13, 14-59, and 60+).
- **Years on ESRD**: Determined using the first service date from patient's Medical Evidence Form (CMS-2728), claims history (all claim types with evidence of dialysis),

EQRS, and Dialysis Facility Measures the Scientific Registry of Transplant Recipients (SRTR) database.

- **Diabetes as cause of ESRD**: Primary cause of ESRD determined from patient's Medical Evidence Form (CMS-2728) and EQRS. When primary cause of ESRD is missing, we assume diabetes is not the cause of ESRD.
- **Interaction terms:** Two interaction terms between diabetes as cause of ESRD and Age (spline 14-59 and 60+).
- **BMI at incidence**: Calculated based on the height and weight provided on patient's Medical Evidence Form (CMS-2728) and group patients into the following categories: BMI < 18.5, 18.5 ≤ BMI < 25, 25 ≤ BMI < 30, or BMI ≥ 30. BMI is imputed to the BMI ≥ 30 category when either missing, or outside the range of 10 to 70 for adults or 5 to 70 for children.
- **Days hospitalized during index hospitalization**: Each hospitalization's length is determined by taking the difference between the date of admission and the date of discharge available on the inpatient claim. For patients who are transferred between one acute care hospital and another, the measure considers these multiple contiguous hospitalizations as a single acute episode of care, and the length is calculated by taking the difference between the date of admission for the first hospitalization and the date of discharge from the last hospitalization included. Time in the hospital is included as a categorical variable based on quartiles (1 variable for each quartile).
- **Nursing home status**: Uses multiple sources* including the CMS Nursing Home Minimum Data Set (MDS). Determine each patient's nursing home status in previous 365 days and categorize as none (0 days), short-term nursing home (0-89 days), or long-term nursing home (>=90 days) at time of index hospitalization discharge.
- **Medicare Advantage:** Using the Medicare EDB, determine whether the patient was enrolled as a Medicare Advantage (MA) patient at the time of the index hospitalization discharge.
- **Past-year comorbidities (risk variables):** Determined by identifying unique ICD-10 diagnosis codes for each patient reported on Medicare inpatient claims in the 365 days preceding (and inclusive of) the index discharge date. Diagnosis codes are grouped using 53 comorbidity groups defined by the 2019.1 version of the Agency for Healthcare Research and Quality Clinical Classifications Software (AHRQ CCS). See Section 2.11.15 for a list of AHRQ categories included.
- **COVID-19 diagnosis**: COVID-19 diagnosis is obtained from Medicare inpatient claims only. A claim record is confirmed as a COVID-19 diagnosis if the patient's inpatient claim reports any COVID-19 diagnosis codes (ICD-10-CM: U071, B9729, J1282) as primary or secondary diagnoses. Secondary diagnoses include 2nd through 25th ordered diagnoses. Index discharges with an inpatient COVID-19 diagnosis during the hospitalization are identified as COVID-19 index discharges. Since comorbidities in the SRR are based solely on inpatient claims, we do not include COVID-19 diagnoses or other diagnoses from claims associated only with laboratory testing or outpatient visits.
- **Discharged with high-risk condition**: A *high-risk* diagnosis is any diagnosis area (grouped by the Agency for Healthcare Research and Quality [AHRQ] Clinical Classification Software [CS)] that was rare in the population but had a 30-day readmission rate of at least 40%. Note that high-risk diagnosis groups related to

cancer or mental health are excluded from index discharges. The CCS areas identified as high-risk are:

- CCS 5: HIV infection
- CCS 6: Hepatitis
- CCS 56: Cystic fibrosis
- CCS 57: Immunity disorders
- CCS 61: Sickle cell anemia
- CCS 190: Fetal distress and abnormal forces of labor
- CCS 151: Other liver diseases
- CCS 182: Hemorrhage during pregnancy; abruptio placenta; placenta previa
- CCS 186: Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium
- CCS 210: Systemic lupus erythematosus and connective tissue disorders
- CCS 243: Poisoning by nonmedicinal substances

* This may include information from: EQRS (including the Medical Evidence Form (CMS 2728) and Medicare Claims).

In summary, the SRR indicates whether a facility experienced higher or lower readmission rates than the national average after accounting for differences that could be attributed to the patient characteristics listed above, as well as the discharging hospital.

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 = Lower score

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

See flowchart in appendix

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)

Multiple data sources are used for the calculation of this measure, including EQRS and Medicare claims. See attached data dictionary for more details.

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