

**Guide to the New Measure Table in the
Quarterly Dialysis Facility Care Compare
– Preview Report
for April 2024 Refresh**

Overview, Methodology, and Interpretation

April 2024

Table of Contents

I. PURPOSE AND OVERVIEW.....3

II. NEW MEASURE.....3

Standardized Modality Switch Ratio for Incident Dialysis Patients (SMoSR) (1.1-1.7).....3

I. Purpose and Overview

The *Guide to the New Measures Table in the Quarterly Dialysis Facility Care Compare (QDFCC) – Preview Report* is a supplemental document to the *Guide to the Quarterly Dialysis Facility Care Compare (QDFCC) Report*. Together, these guides explain in detail the contents of the QDFCC on Medicare.gov preview reports that were prepared for each dialysis facility under contract to the Centers for Medicare & Medicaid Services (CMS). The guides include the reports' objectives, discussions of methodological issues relevant to particular sections of each report, and descriptions of each data summary. For more information about the purpose and overview of these guides and the reports, please refer to the *Guide to the Quarterly Dialysis Facility Care Compare (QDFCC) Report* found on the DFCC Methods tab of DialysisData.org.

II. New Measure

The table “Upcoming New Measure” in the report provides information about the Standardized Modality Switch Ratio for Incident Dialysis Patients (SMoSR). The information in this table will not be released publicly on the DFCC website or included in the star rating at this time.

Standardized Modality Switch Ratio for Incident Dialysis Patients (SMoSR) (1.1-1.7)

The SMoSR is defined to be the ratio of the number of observed modality switches from in-center to home dialysis (“home dialysis” defined as peritoneal or home hemodialysis) that occur for adult incident ESRD dialysis patients treated at a particular facility to the number of modality switches (from in-center to home dialysis) that would be expected given the characteristics of the dialysis facility's patients and the national norm for dialysis facilities. The measure includes only the first durable switch that is defined as lasting 30 continuous days or longer. The SMoSR estimates the relative switch rate (from in-center to home dialysis) for a facility, as compared to the national switch rate. Qualitatively, the degree to which the facility's SMoSR varies from 1.00 is the degree to which it exceeds (> 1.00) or is below (< 1.00) the national modality switch rates for patients with the same characteristics as those in the facility. Ratios greater than 1.00 indicate better than expected performance while ratios < 1.00 indicate worse than expected performance. Note that this measure is adjusted for the actual patient characteristics of age, diabetes as cause of ESRD, comorbidities at incidence, body mass index (BMI) at onset of ESRD, and calendar year.

Identifying Patients Treated at Each Facility

This measure includes all eligible incident ESRD dialysis patients and is not restricted to Medicare beneficiaries. To be included in the denominator, the patient must be ESRD as defined by a submitted Medical Evidence Form (Form CMS-2728). Patients must be at least 18 years old as of

the first day of ESRD. In order to exclude patients who only received temporary dialysis therapy, we assign patients to a facility only after they have been on dialysis there for the past 30 days. For each patient, we identified the dialysis provider at each point in time using a combination of Medicare dialysis claims, the Medical Evidence Form (Form CMS-2728), and data from EQRS. These sources are used to identify patients that are on chronic in-center or home dialysis (peritoneal or home hemodialysis) for the entire reporting period. Starting with the 1st day of ESRD, we attribute patients to facilities according to the following rules. If the initial modality is home dialysis, we exclude the home modality period from the denominator and consider the 1st day (following) in-center dialysis as the 1st day at risk. A patient is attributed to a facility once the patient has been treated there for the past 30 days. When a patient transfers from one facility to another, the patient continues to be attributed to the original facility for 30 days and then is attributed to the destination facility from day 31. In particular, a patient is attributed to their current facility on 31st day of ESRD if that facility had treated the patient for the past 30 days. For example, if a patient who is on in-center hemodialysis changes from facility A to B and then switches to home dialysis within 30 days of arriving at facility B, facility A would get credit for the switch. In this scenario, given the short time-frame between changing facilities and switching modalities, it is likely that facility A is responsible for the modality education. After 30 days, the switch would be attributed to the receiving facility (i.e., facility B). When a patient is not treated in a single facility for a span of 30 days (for instance, if there were two facility transfers within 30 days of each other), we do not attribute that patient to any facility.

Eligible Patients (1.1)

The SMoSR includes ESRD incident dialysis patients during the past three years of the reporting year who were either on in-center hemodialysis modality or were on home dialysis modality less than 30 days and switched to in-center hemodialysis. In addition, patient age must be over 18 years at the initiation of ESRD treatment.

Patient-years at Risk (1.2)

The number of patient years at risk indicates the total amount of time we followed patients in these analyses. For all patients, time at risk began at the start of the facility treatment period and continued until the earliest occurrence of the following: one day prior to a modality switch; one day prior to a transplant; date of death; end of facility treatment; claim from date of a hospice claim; or one year after the start of treatment, whichever comes first. Since a facility may have treated a patient for multiple periods during the same year, patient years at risk includes time at risk for all periods of treatment at your facility.

Modality Switches (1.3)

This is the total number of modality switches among the incident dialysis patients assigned to this facility. The modality switch only includes the first durable switch to a home dialysis modality

lasting ≥ 30 continuous days. An eligible modality switch is considered as an in-center hemodialysis patient that switches to home dialysis within 365 days of ESRD onset, and the home modality is maintained for ≥ 30 days. Only the first durable modality switch is included if patients have multiple switches.

Expected Number of Modality Switches (1.4)

We used a Cox model to calculate the expected number of modality switches from in-center hemodialysis to a home dialysis modality among eligible patients at the facility during the time period, given the national average of modality switches, and patient case-mix at the facility. We adjusted the cox model for patient age, diabetes as cause of ESRD, patient comorbidities at ESRD incidence, calendar year, and BMI at incidence. We then summed the total number of expected modality switches during all patient-records at the facility as the expected number of modality switches for that facility. If the expected modality switch is < 1 , then the facility is excluded from reporting outcomes.

Standardized Modality Switch Ratio (1.5)

The SMoSR is calculated by dividing the observed total modality switches in 1.3 by the expected total modality switches in 1.4. It enables a comparison of your facility's experience to the national average. A value of less than 1.00 indicates that your facility's total number of modality switches was less than expected, based on national ratios; whereas a value of greater than 1.00 indicates that your facility had a ratio of total modality switches higher than the national average.

Confidence Limit (1.5)

The 95% confidence interval (or range of uncertainty) gives a range of plausible values for the true ratio of facility-to-national modality switches, in light of the observed SMoSR. The upper and lower confidence limits enclose the true ratio approximately 95% of the time if this procedure were to be repeated on multiple samples. Statistically significant confidence intervals do not contain the ratio value 1.00.

P-value (1.6)

The p-value measures the statistical significance of (or evidence against) the hypothesis that the true modality switch ratio for your facility is the same as (neither higher nor lower than) what would be predicted from the overall national ratio of modality switches. The p-value is the probability that the observed SMoSR would deviate from 1.00 as much as it does under the null hypothesis that this ratio is truly equal to 1.00. A small p-value (often taken as < 0.05) indicates that the observed ratio would be highly unlikely under the null hypothesis, and the observed SMoSR suggests that the ratio between the observed and expected modality switches differs

significantly from 1.00. The smaller the p-value, the lower the probability that a facility's ratio of modality switches is equal to the national ratio. Note that the p-value is less than 0.05 whenever the confidence interval does not include the value 1.00. Because the p-value depends on the facility size, a small p-value in a large facility does not necessarily indicate that the difference between this facility's ratio and the national ratio is of clinical importance.

The SMOsR's actual value can be used to assess the clinical importance of the difference between your facility's and the national ratios of modality switches. A SMOsR of 1.25, for example, indicates that your facility's ratio is 25% higher than the national average, which may well be judged to be clinically important. On the other hand, SMOsR values in the range of 0.95 to 1.05 would generally not be considered to be of clinical interest. With very large facilities, however, even relatively small differences in the SMOsR can lead to significant results, so both aspects (the actual value of the SMOsR and the p-value) are important.

Classification Category (1.7)

If the facility SMOsR is greater than 1.00 and statistically significant ($p < 0.05$), the classification is "Better than Expected". If the ratio is less than 1.00 and statistically significant ($p < 0.05$), the classification is "Worse than Expected". Otherwise, the classification is "As Expected" on DFCC.