

# Understanding Measures, Star Ratings, and Quality Outcomes

July 10, 2019  
2:00-3:00 P.M. ET



## Agenda

Topic	Speaker
<b>Dialysis Facility Compare: Review and Background</b>	<b>Golden Horton, MS</b> Technical Lead, Dialysis Facility Compare, Division of Quality Measurement, Centers for Medicare & Medicaid Services
<b>Review of 2018 Release - Measures and Methodology Updates</b>	<b>Joel Andress, PhD</b> End-Stage Renal Disease Subject Matter Expert, Division of Quality Measurement, Centers for Medicare & Medicaid Services
<b>2018 Star Ratings Update</b>	
<b>Updated and New Quality Measures to be Reported on DFC in October 2018</b>	
<b>Star Ratings of CAHPS Survey Results</b>	<b>Scott Scheffler, MS</b> ICH CAHPS Survey Sampling Task Leader, Division for Statistical and Data Sciences, RTI International
<b>2019 Release – Measures Updates</b>	<b>Joel Andress, PhD</b>
<b>Including the Patient Voice</b>	<b>Golden Horton, MS</b>
<b>Questions</b>	

# **Dialysis Facility Compare: Review and Background**

Golden Horton, MS

*Division of Quality Measurement, CMS*

## Background

- » The Centers for Medicare & Medicaid Services (CMS) developed the Dialysis Facility Compare (DFC) Star Ratings in response to a national call for greater transparency in how the agency measures the quality of kidney care and health care consumers' desire to use health care quality data to make informed decisions

## What Are Star Ratings?

- » Star Ratings summarize performance on a 1 to 5 scale using stars to help consumers quickly and easily understand quality of care information
- » Star Ratings spotlight differences in health care quality and identify areas for improvement
- » Star Ratings are useful to consumers, consumer advocates, health care providers, and other stakeholders

# **Review of Dialysis Facility Compare 2018 Release Measures and Methodology Updates**

Joel Andress, PhD  
*ESRD Subject Matter Expert,  
Division of Quality Measurement, CMS*

# Key 2017 Star Ratings TEP Recommendations

- » Update SMR, SHR, STrR, and Hypercalcemia quality measures to reflect updated NQF-endorsed specifications
- » Replace current VA measures with the Standardized Fistula Rate and Long-Term Catheter Rate measures
- » Include Pediatric PD Kt/V in the Star Ratings
- » Provide input on potential next steps for re-setting
- » Add ICH-CAHPS as a separate Star Rating from the DFC Clinical Quality Star Ratings

*For a complete summary, see the Technical Expert Panel final report [here](#).*

*Details about the current DFC Clinical Quality Star Ratings methodology can be found at: <https://dialysisdata.org/content/methodology>*

# October 2018 DFC Clinical Quality Star Ratings

- » The DFC Clinical Quality Star Ratings were released in October 2018
- » The October 2018 DFC Clinical Quality Star Ratings were calculated using the updated methodology
- » Details about the updated DFC Clinical Quality Star Ratings methodology that was used for the October 2018 release can be found at:  
[https://dialysisdata.org/sites/default/files/content/Methodology/Updated\\_DFC\\_Star\\_Rating\\_Methodology\\_for\\_October\\_2018\\_Release.pdf](https://dialysisdata.org/sites/default/files/content/Methodology/Updated_DFC_Star_Rating_Methodology_for_October_2018_Release.pdf)

# Updates for the October 2018 Star Ratings

- » The October 2018 Star Rating release included updated versions of the following measures: SMR, SHR, STrR, and Hypercalcemia. The current VA measures will be replaced with the Standardized Fistula Rate and Long-Term Catheter Rate measures.
- » The new measures were: Standardized Readmission Ratio (SRR), Pediatric PD Kt/V
- » The Pediatric PD Kt/V measure was added into the combined Total Kt/V measure.
- » The ICH CAHPS Star Rating was added as a separate Star Rating.

NOTE: The (NHSN SIR) measure remained on the DFC site but will not be included in the Star Ratings

*The technical notes for the October 2018 DFC Clinical Quality Star Rating methodology are available [here](#).*

# Updated and New Quality Measures that were Reported on DFC in October 2018

- » Standardized Mortality Ratio for Dialysis Facilities (SMR, [NQF #0369](#))
- » Standardized Hospitalization Ratio for Dialysis Facilities (SHR, [NQF #1463](#))
- » Standardized Transfusion Ratio for Dialysis Facilities (STrR, [NQF #2979](#))
- » Hemodialysis Vascular Access: Standardized Fistula Rate (SFR, [NQF #2977](#))
- » Hemodialysis Vascular Access: Long-Term Catheter Rate (Catheter, [NQF #2978](#))
- » Proportion of Patients with Hypercalcemia (Hypercalcemia, [NQF #1454](#))
- » Measurement of nPCR for Pediatric Hemodialysis Patients (nPCR, [NQF #1425](#))

# Quality Measures Used in the DFC Clinical Quality Star Rating Calculation for October 2018 \*\*

- » Standardized Mortality Ratio for Dialysis Facilities (SMR, [NQF #0369](#))
- » Standardized Hospitalization Ratio for Dialysis Facilities (SHR, [NQF #1463](#))
- » Standardized Readmission Ratio for Dialysis Facilities (SRR, [NQF# 2496](#))
- » Standardized Transfusion Ratio for Dialysis Facilities (STrR, [NQF #2979](#))
- » Hemodialysis Vascular Access: Standardized Fistula Rate (SFR, [NQF #2977](#))
- » Hemodialysis Vascular Access: Long-Term Catheter Rate (Catheter, [NQF #2978](#))
- » Total Kt/V Measure
  - Delivered Dose of Hemodialysis Above Minimum (Adult HD Kt/V, [NQF #0249](#))\*
  - Minimum spKt/V for Pediatric Hemodialysis Patients (Pediatric HD Kt/V, [NQF #1423](#))\*
  - Delivered Dose of Peritoneal Dialysis Above Minimum (Adult PD Kt/V, [NQF #0318](#))\*
  - Pediatric Peritoneal Dialysis Adequacy: Achievement of Target Kt/V (Pediatric PD Kt/V, [NQF# 2706](#))\*
- » Proportion of Patients with Hypercalcemia (Hypercalcemia, [NQF #1454](#))

\*Kt/V measurements are combined into a single Total Kt/V measure.

\*\*The Technical Notes for the October DFC 2018 Clinical Quality Star Rating methodology are available [here](#).

## Updates for the October 2018 Star Ratings\*

- » In order to allow DFC users to follow annual trends in Star Ratings after changes to the measures used, facility scores were recalculated using the updated measure set and applied to the April 2018 DFC facility star rating data.
- » The score distribution resulting from this calculation was used to define star rating cutoffs that result in the same proportion of facilities in each star category as achieved in the prior measure set using the same April 2018 facility data. These cutoffs were then used to define the October 2018 star categories.
- » This allowed DFC users to compare results from the prior to current year based on facility performance, accounting for changes in the measure set.

\* The Technical Notes for the DFC October 2018 Clinical Quality Star Rating methodology are available [here](#).

## When Will the DFC Clinical Quality Star Rating Distribution Be Reset?

- » The clinical star ratings distribution will be evaluated once 3 years have passed since the last reset
- » After 3 years have passed, the clinical star rating distribution will be evaluated for a reset when 15% or less of facilities are receiving 1 or 2 stars
- » This aligns with the TEP recommendation for CMS to evaluate a potential re-setting at predictable time intervals
- » A re-setting of the star rating distribution will also include the establishment of a new baseline year

# Star Ratings of CAHPS Survey Results

Scott Scheffler, MS

*ICH CAHPS Survey Sampling Task Leader,  
Division for Statistical and Data Sciences,  
RTI International*

# The In-Center Hemodialysis CAHPS Survey

- » The ICH CAHPS Survey is conducted on a semi-annual basis with samples of hemodialysis patients
- » Survey questionnaire contains 62 items; with 43 considered to be “Core CAHPS” survey items
- » How does CMS ensure the quality of data collected in the survey?
  - Use of independent survey vendors
  - Ongoing training of all survey vendors
  - In-person meetings and oversight with vendors
  - Survey website for announcements and updates
  - Ongoing thorough review of submitted data

## Publicly Reported ICH CAHPS Measures

- » CMS began reporting ICH CAHPS Survey results on Dialysis Facility Compare on [www.medicare.gov](http://www.medicare.gov) in October 2016
- » Results are updated or “refreshed” twice each year
- » Results are based on data from the two most recent survey periods
- » For survey results to be publicly reported, each in-center hemodialysis (ICH) facility must have 30 or more completed surveys across two survey periods
- » “Top-box” (the most positive) scores are reported on Dialysis Facility Compare

# Publicly Reported ICH CAHPS Measures (cont'd)

Three composite and three individual measures are reported on Dialysis Facility Compare

» Composite Measures

- Kidney doctors' communication and caring, (6 survey items)
- Dialysis center staff, care and operations, (17 survey items)
- Providing information to patients, (9 survey items)

» Three global ratings (individual survey items)

- Rating of kidney doctors
- Rating of dialysis center staff
- Rating of dialysis center

## What are Star Ratings?

- » Star Ratings summarize performance using symbols (stars) to help consumers quickly and easily understand quality of care information
- » Star Ratings spotlight differences in health care quality and identify areas for improvement
- » Star Ratings are useful to consumers, consumer advocates, health care providers, and other stakeholders

## **General Information about Star Ratings on CAHPS Surveys**

- » Star Ratings began with the October 2018 refresh using 2017 Spring and 2017 Fall Survey data
- » Star Ratings on the ICH CAHPS Survey are based on the same data as the ICH CAHPS measures publicly reported on Dialysis Facility Compare
- » CMS currently uses star ratings on other CAHPS Surveys, including the Hospital CAHPS and the Home Health CAHPS Surveys, and on the CMS Part C and Part D Star Ratings Program

# Creating Star Ratings on ICH CAHPS: Step 1

Star ratings for the ICH CAHPS Survey measures are calculated using the following steps.

## Step 1

### Construction and Adjustment of Linearized Score

- For star ratings, all survey response levels are used
- Individual survey responses are converted into linear scores on a 0-100 point scale
- Composite scores are based on the mean of the linearized responses to the questions that are included in each composite measure

# Creating Star Ratings on ICH CAHPS: Step 1 (cont'd)

- » After linearized scores are created, they are adjusted for mode effects and patient mix
- » Patient mix = a level playing field among providers by adjusting for patient characteristics that affect response tendencies

## Patient Mix Adjusters

- Patient adjustment factors include age, gender, self-reported overall health status, education, years on dialysis, and selected diseases and conditions
- Most of the adjustment factors come from the patient survey

## Creating Star Ratings on ICH CAHPS: Step 2

### Converting Linearized Scores to Star Ratings

- » A statistical clustering technique is applied to the adjusted linearized scores for any CCN with 30 or more completed surveys
- » Adjusted scores are rounded to the nearest whole number prior to clustering
- » Clustering identifies star groups that **maximize** differences between groups and **minimizes** differences within groups
  - There are no predetermined quotas on the number of in-center hemodialysis facilities that would be included in any star category
- » A 1, 2, 3, 4, or 5 star is assigned to each ICH CAHPS measure based on cluster assignments

## Star Ratings Cut Points on ICH CAHPS

- » The cut points (boundaries) for star assignments are derived from the range of individual measure Star Ratings in each cluster.
- » The star levels associated with each cluster are determined by ordering the means of each cluster.
- » In each public reporting period, the cut points are re-estimated and made available to ICH facilities in a Preview Report.
- » Linearized scores for each measure are provided to ICH facilities via the Preview Report.

# DFC October 2019 Release Measure Candidates

Joel Andress, PhD  
*ESRD Subject Matter Expert,  
Division of Quality Measurement, CMS*

## **Dialysis Facility Compare October 2019 Release (Preview Period: July 15-August 15)**

- » Public Reporting for October 2019
  - Quality measure results publicly reported on Dialysis Facility Compare (DFC) will be refreshed
    - Two new transplant waitlisting measures begin public reporting
  - The DFC Star Ratings will be refreshed
    - There are no changes to the Star Ratings methodology for 2019

# Quality Measures Updated for October 2019 Release

- » Standardized Mortality Ratio for Dialysis Facilities (SMR, [NQF #0369](#))
- » Standardized Hospitalization Ratio for Dialysis Facilities (SHR, [NQF #1463](#))
- » Standardized Readmission Ratio for Dialysis Facilities (SRR, [NQF# 2496](#))
- » Standardized Transfusion Ratio for Dialysis Facilities (STrR, [NQF #2979](#))
- » Hemodialysis Vascular Access: Standardized Fistula Rate (SFR, [NQF #2977](#))
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- » Delivered Dose of Hemodialysis Above Minimum (Adult HD Kt/V, [NQF #0249](#))
- » Minimum spKt/V for Pediatric Hemodialysis Patients (Pediatric HD Kt/V, [NQF #1423](#))
- » Delivered Dose of Peritoneal Dialysis Above Minimum (Adult PD Kt/V, [NQF #0318](#))
- » Pediatric Peritoneal Dialysis Adequacy: Achievement of Target Kt/V (Pediatric PD Kt/V, [NQF# 2706](#))
- » Proportion of Patients with Hypercalcemia (Hypercalcemia, [NQF #1454](#))
- » NHSN Bloodstream Infection – Standardized Infection Ratio (SIR, [NQF #0258](#))
- » ICH-CAHPS Patient Experience with Care ([NQF #1460](#))
- » Percentage of Prevalent Patients Waitlisted ([PPPW](#))
- » Standardized First Kidney Transplant Waitlist Ratio for Incident Dialysis Patients ([SWR](#))

## DFC October 2019 Release: New Measures\*

- » Percentage of Prevalent Patients Waitlisted (PPPW)
- » Standardized First Kidney Transplant Waitlist Ratio for Incident Dialysis Patients (SWR)

\* Both the PPPW and SWR measures were available for dialysis facility preview beginning with the October 2018 release of DFC. During this time, neither measure was available for public review.

## Percentage of Prevalent Patients Waitlisted

- » Numerator: Number of patient months in which the patient at the dialysis facility is on the kidney or kidney-pancreas transplant waitlist as of the last day of each month during the reporting year.
- » Denominator: All patient-months for patients who are under the age of 75 in the reporting month and who are assigned to the dialysis facility according to each patient's treatment history as of the last day of each month during the reporting year.

# Percentage of Prevalent Patients Waitlisted

## » Exclusions:

- Patients who are age 75 or older in the reporting month.
- Patient who are admitted to a skilled nursing facility (SNF) or hospice during the month of evaluation are excluded from that month; patients who are admitted to a skilled nursing facility (SNF) at incidence or previously according to Form CMS-2728 are also excluded.

Full documentation can be found at

[https://dialysisdata.org/sites/default/files/content/ESRD\\_Measures/PPPW\\_MIF\\_MJF.pdf](https://dialysisdata.org/sites/default/files/content/ESRD_Measures/PPPW_MIF_MJF.pdf).

# Standardized First Kidney Transplant Waitlist Ratio for Incident Dialysis Patients (SWR)

- » Numerator: Number of patients at the dialysis facility listed on the kidney or kidney-pancreas transplant waitlist or who received living donor transplants within the first year following initiation of dialysis.
- » Denominator: The denominator for the SWR is the expected number of waitlist or living donor transplant events at the facility according to each patient's treatment history for patients within the first year following initiation of dialysis, adjusted for age incident comorbidities, among patients under 75 years of age who were not already waitlisted and did not have first transplantation prior to the initiation of ESRD dialysis.

# Standardized First Kidney Transplant Waitlist Ratio for Incident Dialysis Patients (SWR)

## » Exclusions:

- Patients who are 75 years of age or older at the initiation of dialysis;
- Preemptive patients: patients at the facility who have had their first transplantation prior to the start of ESRD treatment; or are listed on the kidney or kidney-pancreas transplant waitlist prior to the start of dialysis;
- Patients who are admitted to hospice at the time of initiation of dialysis;
- Patients who are admitted to a skilled nursing facility (SNF) at incidence or previously according to Form CMS-2728.

Full documentation can be found at

[https://dialysisdata.org/sites/default/files/content/ESRD\\_Measures/SWR\\_MIF\\_MJF.pdf](https://dialysisdata.org/sites/default/files/content/ESRD_Measures/SWR_MIF_MJF.pdf).

## DFC October 2019 Release Star Ratings

- » No updates to measures or methodology are planned for the DFC October 2019 Star Ratings
- » Details about the current DFC Quality of Patient Care Star Ratings methodology for the October 2019 release can be found at:  
[https://dialysisdata.org/sites/default/files/content/Methodology/Updated\\_DFC\\_Star\\_Rating\\_Methodology\\_for\\_October\\_2018\\_Release.pdf](https://dialysisdata.org/sites/default/files/content/Methodology/Updated_DFC_Star_Rating_Methodology_for_October_2018_Release.pdf)

# Quality Measures Used in the DFC Quality of Patient Care Star Rating Calculation for October 2019 Release\*\*

- » Standardized Mortality Ratio for Dialysis Facilities (SMR, [NQF #0369](#))
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\*Kt/V measurements are combined into a single Total Kt/V measure.

\*\*The Technical Notes for the October DFC 2019 Clinical Quality Star Rating methodology are available [here](#).

## When Will the DFC Quality Star Rating Distribution Be Reset?

- » The distribution will be evaluated once 3 years have passed since the last reset
- » After 3 years have passed, the distribution will be evaluated for a reset when 15% or less of facilities are receiving 1 or 2 stars
- » This aligns with the 2017 TEP recommendation for CMS to evaluate a potential re-setting at predictable time intervals
- » A re-setting of the star rating distribution will also include the establishment of a new baseline year

## 2019 Star Rating TEP

- » This TEP is charged with providing recommendations on when and how to reset the DFC Star Ratings.
- » The TEP recommendations will be used to inform the development of a draft methodology and timeline for resetting the DFC Star Ratings distribution.
- » The DFC Star Rating reset is intended to enhance the program's goal to inform the public of meaningful performance differences across US dialysis facilities.

## 2019 Star Rating TEP

- » The TEP met for two conference calls in May 2019 ahead of the in person meeting on June 6, 2019.
- » The TEP summary report will be available on the CMS website in the coming months after the TEP work is completed.

## Preview Period

- » The *QDFC - Preview Report for October 2019 Release* will be available for preview and comment on the Dialysis Data secure website ([www.dialysisdata.org](http://www.dialysisdata.org)) from **July 15 – August 15, 2019**.
- » The measures on Table “Quarterly Dialysis Facility Compare Preview” beginning on page 3 of the QDFC Preview Report are intended to be reported on the DFC website ([www.medicare.gov](http://www.medicare.gov)).
- » The Preview Report will now include the new PPPW and SWR measures of transplant waitlisting.

## Patient List Requests

- » During the quarterly DFC preview periods, users are able to request their facility's patient lists
  
- » The patient list request protocol:
  - Facilities will be encouraged to request patient lists in the first 5 days of a 15-day preview period and the first 10 days of a 30-day preview period
  
  - Patient list requests in the first 5-10 days of a preview period will receive top priority in response time
  
  - After this period, DFC will continue to fulfill patient lists, if requested, but the response time will be greater

# **Including the Patient Voice**

Golden Horton, MS

*Division of Quality Measurement, CMS*

# Listening to the Patient Voice: Patient Summit

- » In 2017, NORC at the University of Chicago, with support from the American Association of Kidney Patients, conducted a five-hour discussion with ESRD patients and one caregiver.
- » Patients were members of five national organizations representing the interests of ESRD patients.
- » This feedback session was the first time DFC leveraged relationships with patient advocacy organizations in the kidney community to dually:
  - Receive broad patient input on the website
  - Engage patients

## **Listening to the Patient Voice: DFC Focus Groups**

- » In 2018, CMS conducted 6 focus groups in 3 cities with patients of all ages to hear about their experiences with dialysis
- » Conversations focused on how patients find and use information about dialysis facilities and treatments

## **Listening to the Patient Voice: CMS Quality Conference**

- » The CMS DFC team regularly attends the annual CMS Quality Conference to hear from patients, providers, ESRD Networks, and the larger health care community about dialysis.

# Including the Patient Voice

- » What we hear:
  - Current depictions of ESRD and ESRD patients do not always represent the range of patient experiences, and many feel they are too negative
  - Information about treatment options and quality should be proactively provided directly into the hands of patients who might not otherwise seek it out
  - Patients want and seek resources specific to their current stage of disease and health status, but often don't know where to look
  - Medicare is a trusted source of information

## Including the Patient Voice

- » CMS believes that DFC is intended to support patients seeking information on kidney care
- » We continue to:
  - reach out to the community for ideas and suggestions on how to improve
  - work with the American Association of Kidney Patients and others to get feedback and perspectives from patients
  - continue to develop tools to help the community educate health care professionals, patients, and caregivers about DFC
  - work on developing a DFC Handbook to help patients and the rest of the dialysis community understand and navigate the DFC website

## Patient Voice Next Steps

- » Connect with patient and provider organizations to make sure they have the resources they need
- » Create resources that help patients understand their dialysis options
- » Look for opportunities to incorporate feedback into DFC, where possible
- » Consider feedback in the bigger picture of DFC's future development

# Resources

- » Information about measure specifications and the Star Ratings methodology will be found in v3.0 of the CMS End-Stage Renal Disease (ESRD) Measures Manual:  
<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/ESRDQIP/Downloads/ESRD-Manual-v30.pdf>

## Questions?

- » For additional questions about the Star Ratings methodology or measure specifications, please email the UM-KECC helpdesk at [dialysisdata@umich.edu](mailto:dialysisdata@umich.edu)
- » For questions about CROWNWeb data submission, contact the QualityNet helpdesk at (866) 288-8912 or <http://help.mycrownweb.org/>
- » For questions about the ICH CAHPS® Survey contact the project team at <https://ichcahps.org>

**Thank you!**