

# Understanding Measures, Star Ratings, and Quality Outcomes

**October 5, 2016  
1:30 P.M. ET**



# Agenda

| Topic   | Speaker  |
|---|--|
| <b>Dialysis Facility Compare<br/>Star Ratings Overview</b>          | <b>Elena K. Balovlenkov, MS, RN, CHN</b><br>Technical Lead, Dialysis Facility Compare,<br>Division of Quality Measurement,<br>Centers for Medicare & Medicaid Services |
| <b>Dialysis Facility Compare 2016<br/>Star Ratings Methodology</b>  | <b>Joel Andress, PhD</b><br>ESRD Measures Development Lead,<br>Division of Quality Measurement,<br>Centers for Medicare & Medicaid Services                            |
| <b>Dialysis Facility Compare 2016<br/>Release - Measure Updates</b> |  |
| <b>Dialysis Facility Compare - New<br/>Measures</b>                 |  |
| <b>Dialysis Facility Compare Measure<br/>Implementation Process</b> |  |
| <b>Questions</b>  |  |

# Dialysis Facility Compare Star Ratings Overview

## 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.

The following initiatives supported the development of the DFC Star Ratings:

- Affordable Care Act
- National Quality Strategy
- Obama Administration's Digital Government Strategy

## DFC Star Ratings Highlights

| <b>Date</b>                  | <b>Activity</b>                         |
|------------------------------|---|
| <b>June 2014</b>             | Star Ratings announcement               |
| <b>January 2015</b>          | DFC 2014 Star Ratings release           |
| <b>April 2015</b>            | Technical Expert Panel (TEP) review     |
| <b>October 2015</b>          | DFC 2015 Star Ratings release           |
| <b>December 2015</b>         | TEP discussion of April 2015 report     |
| <b>February – March 2016</b> | Public comment period                   |
| <b>June 2016</b>             | Public call on Star Ratings methodology |
| <b>August 2016</b>           | Public call on measure updates          |
| <b>October 2016</b>          | DFC 2016 Star Ratings refresh           |

## What's New in October?

- Revised Star Ratings methodology
- Added In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (ICH-CAHPS) measure to DFC
  - Posted Patient Experience Survey results
- Added two new clinical quality measures to DFC
- Revised four existing quality measures
- Ratio measures will be presented as rates
- Improved layout and language

## Why is CMS Making Changes?

- To respond to feedback from the ESRD community:
  - 2015 TEP
  - Consumer testing
  - User experience surveys
- To make quality information easy to access and understand
- To ensure Dialysis Facility Compare meets the needs of the ESRD community

## Why is Patient Experience of Care Important?

- Based on the TEP and feedback from ESRD patients, it's important for DFC to include patients' experiences because patients want to:
  - Know how other patients view a dialysis center when deciding where to receive care.
  - Value the opinions of others "living" or going through dialysis.

## How is Patient Experience of Care Displayed?

- The patient experience survey results are **not** part of the Star Ratings, at this time.
- Patient experience survey results appear on a page separate from Star Ratings and other quality measures.

# **Dialysis Facility Compare 2016 Star Ratings Methodology**

# Dialysis Facility Compare 2016 Star Ratings Methodology

- The following slides show a general overview of the changes to the Star Ratings methodology as a result of the TEP and public comment period.
- For complete information please see the slides and transcript from the June call, available on the ESRD General Information page [here](#).

# TEP Recommendations

| Recommendations                           | Updated Methodology   |
|---|---|
| Establish a baseline to show improvement. | <ul style="list-style-type: none"> <li>• Takes into account changes in facility performance on the quality measures over time.</li> <li>• Compares data to performance standards set in a baseline year.</li> <li>• Demonstrates if a facility's Star Ratings improves (or declines) in performance over time.</li> </ul> |
| Account for highly skewed measures.       | <ul style="list-style-type: none"> <li>• Limits the impact of a few very low scores by applying a statistical method called truncated Z-scores.</li> <li>• This ensures that Star Ratings are not determined by extreme outlier performance on a single measure.</li> </ul>   |
| Ensure accuracy of ratings.               | <ul style="list-style-type: none"> <li>• Keeps the continuity of measures.</li> </ul>   |

For details, see the Updated Dialysis Facility Compare Star Rating Methodology Technical Notes [here](#).

## DFC Updated Methodology

| DFC 2014 Star Ratings Methodology  | DFC 2016 Star Ratings Methodology   |
|--|---|
| <p><b>Probit scores</b> used for percentage measures.</p>  | <p><b>Z-scores</b> used for percentage measures.</p>  |
| <p>Calculate measure scores in the current year based off relative scoring in the <b>current year</b>.</p>                         | <p>Calculate measure scores in the current year based off relative scoring in the <b>baseline year</b>.</p>                     |
| <p>Assign Star Ratings in the current year based on relative cutoffs for Final Facility Scores set in the <b>current year</b>.</p> | <p>Assign Star Ratings in the current year based on relative cutoffs for Final Facility Scores in the <b>baseline year</b>.</p> |

*Current year refers to the calendar year of data that is being presented as new on DFC.*

*Baseline year refers to the calendar year of collected data that is used to analytically determine measure scoring criteria and star rating cutoffs.*

# **Dialysis Facility Compare 2016 Release - Measure Updates**

## DFC 2016 Release - Measure Updates

- In response to feedback from the renal community, DFC revised the following measures:
  - Kt/V
  - Vascular Access
    - Fistula; catheter greater than 90 days
  - Hypercalcemia
  - Standardized Readmission Ratio (SRR)
- The National Quality Forum (NQF) endorsed these changes in 2015.
- We presented these changes in more detail during our August 31 national provider call. The slides and a transcript from that call are available on the ESRD General Information page [here](#).

# **Dialysis Facility Compare 2016 Release - New Measures**

## Patient Experience Survey

In response to requests from health care consumers' feedback about the importance of understanding other patients' experiences and TEP recommendations, CMS will report results from the ICH-CAHPS® patient experience survey semi-annually.

- The patient experience survey results will not be part of the star ratings at this time.
- Survey results will appear on a page separate from Star Ratings and other quality measures.
- An in-center hemodialysis facility must have at least 30 completed surveys over two survey periods for reporting.
- Data are adjusted so facilities can be compared fairly.

## Patient Experience Survey

Dialysis Facility Compare will report six indicators of patients' experience:

- Three items which combine a number of survey questions and summarize responses about:
  - Kidney doctors' communication and caring
  - The quality of dialysis center care and operations
  - How well the dialysis center is providing information to patients
- Three individual questions which provide patients' ratings of their experiences with:
  - Kidney doctors
  - Dialysis center staff
  - Dialysis facility

# National Healthcare Safety Network Standardized Bloodstream Infection Ratio

The standardized infection ratio (SIR) is a ratio of the number of bloodstream infections that are observed at a facility versus the number of bloodstream infections that are predicted for that facility, based on national baseline data.

$$\text{SIR} = \frac{\text{Number of Observed Bloodstream Infections}}{\text{Number of Expected Bloodstream Infections}}$$

|                   |  |
|-------------------|--|
| <b>SIR &gt; 1</b> | <b>More infections than predicted</b>  |
| <b>SIR = 1</b>    | Same number of infections as predicted |
| <b>SIR &lt; 1</b> | Fewer infections than predicted        |

**Example Dialysis Event BSI Rate and SIR**

| Vascular Access Type | # BSI    | # Patient-months | Facility BSI Rate/ 100 Patient-months | NHSN BSI Rate/ 100 Patient-months <sup>1</sup> | Predicted # of BSI <sup>2</sup> |
|----------------------|----------|------------------|---------------------------------------|--|---------------------------------|
| Fistula              | 0        | 114              | 0.00                                  | 0.26   | 0.32                            |
| Graft                | 1        | 102              | 0.98                                  | 0.39   | 0.41                            |
| All CVC              | 3        | 72               | 4.17                                  | 2.16   | 1.78                            |
| Other                | 0        | 3                | 0.00                                  | 0.67   | 0.03                            |
| <b>All</b>           | <b>4</b> | <b>291</b>       | <b>-</b>                              | <b>-</b>                                       | <b>2.54</b>                     |

$$\text{Standardized Infection Ratio (SIR)} = \frac{\text{Observed}}{\text{Predicted}} = \frac{4}{2.54} = 1.57$$

1. 2014 aggregate NHSN BSI rates.  
2. Mock data for illustrative purposes only.

## Pediatric Peritoneal Dialysis Kt/V

The Pediatric Peritoneal Dialysis (PD) Kt/V measure equals the percent of eligible pediatric PD patients at the facility who had enough wastes removed from their blood during dialysis: Kt/V greater than or equal to 1.8.

- **Denominator:** To be included in the denominator for a month, the patient must:
  - Be on PD for particular reporting the entire month.
  - Be < 18 years old at the beginning of the month.
  - Have had ESRD for greater than 90 days at the beginning of the month.
  - Be assigned to that facility for the entire month.
- **Numerator:** Number of patient months in the denominator in which delivered PD dose was a weekly Kt/V urea  $\geq 1.8$  (dialytic + residual, measured in the last six months).

# **Dialysis Facility Compare Measure Implementation Process**

## DFC Implementation Process

- Last October, CMS began enhancing the process of adding measures to DFC by:
  - Increasing transparency in the process and selection criteria.
  - Allowing for increased input from the ESRD community on candidate measures.
  - Increasing opportunities for the inclusion of externally developed measures on DFC.
  - Updating measures implemented on DFC in October 2016 to match new NQF-endorsed specifications.
    - This is consistent with previous measure updates.
    - CMS will provide a greater degree of transparency in the future.

## DFC Measure Implementation Changes

- CMS will modify its measure implementation process to enhance transparency for new and updated measures.
- New/updated measures presented today will be:
  - Subject to public comments for 60 days.
  - Previewed privately by facilities during the July-August 2017 Preview Period.
  - Updated in the ESRD Measure Manual by January 2018.
  - Publicly reported in the DFC October 2018 release and (if applicable) included in the DFC 2018 Star Ratings at that time.

# Upcoming New and Modified Measures

Below is a preview of new or modified measures as they may appear in future DFC preview periods. They will not appear on DFC in the upcoming release and are not included in the Star Ratings at this time.

**Upcoming New and Modified Measures (not currently reported on DFC):** The following table displays a preview of new or modified measures for this facility as they will appear in future DFC releases. They will not appear on DFC in the upcoming release and are not included in the star rating at this time.

| Measure Name   | This Facility                 |
|--|-------------------------------|
| <b>Updated Measures</b>  |                               |
| <b>Patient Survival (2013-2016)</b>  |                               |
| Standardized Mortality Ratio <sup>*1</sup> (Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%))       | 1.08 (0.78, 1.46)             |
| Mortality Rate <sup>*1</sup> (per 100 patient-years)   | 18.9 (per 100 patient years)  |
| Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%)  | 13.6, 25.6                    |
| Classification Category  | A: Expected                   |
| <b>Hospital Admissions (2016)</b>  |                               |
| Standardized Hospitalization Ratio <sup>*2</sup> (Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%)) | 1.09 (0.65, 1.90)             |
| Hospitalization Rate <sup>*2</sup> (per 100 patient-years)   | 196.9 (per 100 patient years) |
| Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%)  | 117.4, 342.7                  |
| Classification Category  | A: Expected                   |
| <b>Anemia Management (2016)</b>  |                               |
| Standardized Transfusion Ratio <sup>*3</sup> (Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%))     | 0.53 (0.15, 2.28)             |
| Transfusion Rates <sup>*3</sup> (per 100 patient-years)  | 20.8 (per 100 patient years)  |
| Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%)  | 5.9, 89.9                     |
| Classification Category  | A: Expected                   |
| <b>Vascular Access (2016)</b>  |                               |
| Standardized Fistula Rate (Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%))                        | 46.1%                         |
| Lower Confidence Limit (2.5%), Upper Confidence Limit (97.5%)  | 37.4%, 55.2%                  |
| Classification Category  | Worse than Expected           |
| Long-Term Catheter Rate  | 7.1%                          |
| Classification Category  | A: Expected                   |
| <b>New Measures</b>  |                               |
| <b>Dialysis Adequacy (January 1-December 31, 2016)</b>   |                               |
| Percentage of pediatric in-center hemodialysis patient-months with documented monthly nPCR measurements          | 83%                           |

[\*1] The updated version of this measure includes revisions to the adjustments for incident comorbidities, prevalent comorbidities, and diabetes. It now includes Medicare patients only.

[\*2] The updated version of this measure includes revisions to the adjustments for incident comorbidities, prevalent comorbidities, and diabetes.

[\*3] The updated version of this measure includes a revised definition of transfusion events.

## DFC Implementation Process

- National Provider Call: October 5, 2016
  - Present measures being considered for DFC October 2018 release.
  - Begin Measure Submission Period—We are now accepting recommendations and comments for measures that will be implemented in the DFC October 2018 release.
- Measure Comment Submission Deadline: December 7, 2016

## **DFC 2018 Release Implementation Process**

- Measure selection and announcement: January 2017
- Preview period for new and updated measures: July–August 2017
- Announce final measure implementation: October 2017
- Update ESRD Measure Manual: January 2018
- New and updated measures public on DFC: October 2018

# **DFC October 2018 Release: Measure Candidates**

# DFC October 2018 Release: Measure Candidates

- Measurement of nPCR for Pediatric HD Patients (NQF #1425)

# DFC October 2018 Release: Updated Measures

- Updating existing measures
  - Standardized Mortality Ratio (NQF #0369)
  - Standardized Hospitalization Ratio (NQF #1463)
  - Standardized Transfusion Ratio (NQF #2979)
  - Standardized Fistula Rate (NQF #2977), replacing measure NQF #0257
  - Long-Term Catheter Rate (NQF #2978), replacing measure NQF #0256

# **DFC October 2018 Star Ratings: Measure Candidates**

## **Dialysis Facility Compare Star Ratings for October 2018 Rollout**

- The following measures are proposed for inclusion in the Star Ratings beginning in October 2018.
- We request your comments on these measures. Their inclusion in the DFC Star Ratings will also be evaluated by a Technical Expert Panel prior to implementation.

## DFC October 2018 Star Ratings: Measure Candidates

- Standardized Readmission Ratio (SRR, NQF #2496)
- Pediatric Peritoneal Dialysis Adequacy: Achievement of Target Kt/V (NQF #2706)
- ICH-CAHPS (NQF #0258)
- NHSN Bloodstream Infection (NQF #1460)

# DFC October 2018 Star Ratings: Measure Updates

- Measure Updates
  - Standardized Fistula Rate (NQF #2977)
  - Long-Term Catheter Rate (NQF #2978)
  - SMR (NQF #0369)
  - SHR (NQF #1463)
  - STrR (NQF #2979)
- Measures for removal
  - Fistula Rate (NQF #0257)
  - Catheter Rate (NQF #0256)
  - SMR (as reported on DFC 2016 Release)
  - SHR (as reported on DFC 2016 Release)
  - STrR (as reported on DFC 2016 Release)

# DFC October 2018 Star Ratings: Measure Updates

- Measure specifications for all measures may be found at <https://dialysisdata.org/content/esrd-measures>.

# **Commenting on DFC October 2018 Measure Candidates**

# Submitting Comments and Candidate Measures for Consideration

- CMS is accepting comments beginning October 5 through December 7, 2016 on:
  - DFC measure candidates
  - DFC measure updates
  - Star Ratings measure candidates
  - Star Ratings measure updates
  - Additional measures candidates for DFC or Star Ratings
  - Star Ratings scoring methodology and reporting

## Measure Submission Requirements

- If you would like to submit a measure for consideration as a candidate measure, you must provide:
  - Complete measure specifications
  - Clinical evidence supporting the use of the measure
  - Measure testing data consistent with the requirements of the NQF
- We recommend using the NQF Measure Submission Form as a basis for any submitted measure.
- Submitted measures will be considered based on the information provided.

## Measure Submission Requirements

- Please submit any comments or measure suggestions to the DialysisData.org Helpdesk at [dialysisdata@umich.edu](mailto:dialysisdata@umich.edu).

## Resources

- [Technical notes](#) on the updated Dialysis Facility Compare Star Ratings methodology
- [Technical notes](#) on Dialysis Facility Compare Star Ratings original methodology
- Technical Expert Panel [reports and recommendations](#)
- [Slides](#) for the June 2016 and August 2016 National Provider Calls
- For additional information about the Star Ratings methodology or measure specifications, please email the DialysisData.org Helpdesk at [dialysisdata@umich.edu](mailto:dialysisdata@umich.edu).

## Resources

- [Dialysis Facility Compare](#)
- [In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems \(ICH-CAHPS®\) Survey](#)
- [Pediatric Peritoneal Dialysis \(PD\) Kt/v Measure Information Form](#)
- [National Healthcare Safety Network \(NHSN\) Dialysis Event Surveillance](#)
- [NHSN Guide to the NHSN Dialysis Event Surveillance Bloodstream Infection \(BSI\) Standardized Infection Ratio \(SIR\) Measure](#)

# Questions

**Thank you!**