

## OVERVIEW OF CJR QUALITY MEASURES, COMPOSITE QUALITY SCORE, AND PAY-FOR-PERFORMANCE METHODOLOGY

This document describes the two quality measures included in the Comprehensive Care for Joint Replacement (CJR) model, the collection and submission of patient-reported outcomes (PRO) and risk variable data for measure development, linking CJR participant hospitals' performance on quality measures to payment, and the public reporting of quality measure results for hospitals participating in the CJR model.

### QUALITY MEASURES

The two quality measures included in the CJR model are the total hip arthroplasty and/or total knee arthroplasty (THA/TKA) Complications measure (NQF #1550) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey measure (NQF #0166), both of which are already collected under the Hospital Inpatient Quality Reporting (HIQR) program.

#### THA/TKA Complications Measure (NQF #1550)

The THA/TKA Complications measure (NQF #1550) is currently implemented in HIQR Program and the Hospital Value-Based Purchasing (HVBP) Program and assesses a participant hospital's facility-level risk-standardized complication rate (RSCR) in the 90-day period following THA and/or TKA surgical procedures. The THA/TKA Complications measure includes only elective THA/TKA patients and, therefore, excludes fractures, which are included in the CJR model. Please refer to section III.D.2.a.(4) of the November 2015 CJR final rule for more information specific to the inclusion and exclusion criteria for the THA/TKA Complications measure.

CMS assigns participant hospitals to a performance percentile for the THA/TKA Complications measure based on the distribution of RSCR among subsection (d), of the November 2015 final rule, hospitals that are eligible for payment under IPPS, report the measure, and meet the minimum of at least 25 patient cases over a three-year measurement period. A participant hospital will not have a value for the THA/TKA Complications measure if the hospital does not meet the minimum case count of 25 cases in the three-year measurement period.

Hospitals can obtain their RSCR from their Hospital-Specific Report (HSR) available on QualityNet or from the Hospital Compare site at: <https://www.medicare.gov/care-compare/?providerType=Hospital&redirect=true>. Once on this site, select the "Complications" category, then the "Complications" dataset. Next, hospitals should filter this dataset by the "Measure ID" column to only show "COMP\_HIP\_KNEE" data.

For more information, see the Hospital Quality Initiative Measure Methodology which can be found here: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html>. The THA/TKA Complications measure specifications are located in the "Hip and Knee Arthroplasty Complications Updates" zip folder.

## Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey Measure NQF 0166

The CJR model also uses the HCAHPS Survey measure (NQF #0166), also known as the CAHPS Hospital Survey, which is a national, standardized, publicly-reported survey of patients experience of hospital care.

To summarize performance on the HCAHPS Survey measure, the CJR model uses the HCAHPS Linear Mean Roll-up (HLMR) score. The HLMR score summarizes performance across the publicly-reported HCAHPS measures, with the exception of Pain Management. The HLMR is the average of the linear mean scores (LMS) of the HCAHPS measures, using a weight of 1.0 for each of the six HCAHPS composite measures (excluding Pain Management), and a weight of 0.5 for each of the single item measures (Cleanliness, Quietness, Overall Hospital Rating, and Recommend the Hospital).

The patient population for the HCAHPS Survey measure includes adult patients admitted to the medical, surgical, and maternity care service lines. The HCAHPS Survey measure summarizes eligible patients' perceptions of their entire hospital experience; it is not limited to patients with Medical Severity Diagnosis-Related Groups (MS-DRGs) 469, 470, 521, and 522 alone.

CMS assigns participant hospitals to a performance percentile for the HCAHPS Survey measure based on the distribution of measure results for all subsection (d) hospitals that are eligible for payment under IPPS, report the measure, and meet the minimum of 100 completed surveys in a four quarter period. A participant hospital will not have a reported value for the HCAHPS Survey measure if it does not meet the minimum of 100 completed surveys in a four quarter period. These are the same thresholds that are used in the HVBP and HIQR Programs.

Hospitals can calculate their HLMR score by using the HCAHPS linear mean scores (LMS) from their Hospital Compare Preview Report for the requisite time period. The LMS summarizes all survey responses for each of the 11 HCAHPS measures.

Using their LMS, hospitals can apply the formula for creating the HCAHPS Summary Star Rating, available on pages 3-4 of the HCAHPS Star Rating Technical Notes (<https://hcahponline.org/en/hcahps-star-ratings/#TechNotes>), to their LMS, with one modification. For the CJR model, the HLMR will use a weight of 1.0 for six of the HCAHPS composite measures, excluding Pain Management, and a weight of 0.5 for each of the single item measures (Cleanliness, Quietness, Overall Hospital Rating, and Recommend the Hospital). A detailed description of LMS can be found in HCAHPS Star Rating Technical Notes, at <https://hcahponline.org/en/hcahps-star-ratings/#TechNotes>.

A detailed discussion of the HCAHPS Survey, and the protocols for sampling, data collection, coding, and file submission can be found in the current HCAHPS Quality Assurance Guidelines manual, available at: <https://hcahponline.org/en/quality-assurance/>.

## **PATIENT REPORTED OUTCOMES (PRO) AND RISK VARIABLE DATA**

The CJR model incentivizes the submission of THA/TKA patient-reported outcomes (PRO) and limited risk variable data following eligible elective primary THA/TKA procedures. Integrating this voluntary data submission initiative into the CJR model will provide an opportunity to collect data from the patient's perspective, data that are necessary to finalize and test the specifications of a hospital-level performance measure(s) of PRO following elective primary total hip and/or total knee arthroplasty (THA/TKA PRO-PM). Submission of PRO and risk variable data is not required for reconciliation payment eligibility. However, CJR participant hospitals that successfully submit PRO data may increase their financial opportunity under the model, since CJR participant hospitals that successfully submit PRO and risk variable data can receive two points toward their composite quality score.

In order to meet the requirements for successful submission of PRO data, hospitals need to submit the Veterans RAND 12 Item Health Survey (VR-12) **or** Patient-Reported Outcomes Measurement Information System (PROMIS) Global-10 generic PRO survey; **and** the Hip disability and Osteoarthritis Outcome Score (HOOS)/Knee injury and Osteoarthritis Outcome Score (KOOS) Jr. **or** HOOS/KOOS subscales PRO survey for patients undergoing eligible elective primary THA/TKA procedures. The PRO surveys must be collected during both the pre- and post-operative data collection timeframes. The surveys that a given patient completes at the pre-operative data collection timeframe must be the same surveys they complete at the post-operative data collection period. In addition to the PRO surveys, hospitals should also submit identifiers so that pre- and post-operative data can be linked. Finally, hospitals must submit additional risk variables which are only collected at the pre-operative data collection period. Additional data elements such as the Medicare Provider Number, Date of Data Collection, Mode of Collection, and Survey Respondent are also requested to enhance PRO measure development data quality.

Performance on the PRO and risk variable data elements will not be taken into consideration when assigning composite quality score points; only successful submission per the CJR model requirements will determine whether or not composite quality points are awarded for data submission.

Hospitals may collect PRO and risk variable data for Medicare patients who are aged 65 and older and undergoing eligible elective primary THA/TKA procedure(s).

Participating hospitals must meet the minimum case requirements for eligible procedures in the table below for each performance year in order to fulfill the successful data collection criteria set forth in the November 2015 CJR final rule and the May 2021 CJR final rule.

**TABLE 1: MINIMUM CASE REQUIREMENTS FOR ELIGIBLE PROCEDURES IN EACH PERFORMANCE YEAR (PY) FOR SUCCESSFUL DATA COLLECTION**

<b>PY</b>	<b>Eligible THA/TKA Procedure Window</b>	<b>Pre-operative PRO and Risk Variable Submission Requirements</b>
1	July 1, 2016 – August 31, 2016	≥ 50% or ≥ 50 eligible procedures
2	Sep 1, 2016 – June 30, 2017	≥ 60% or ≥ 75 eligible procedures
3	July 1, 2017 – June 30, 2018	≥ 70% or ≥ 100 eligible procedures
4	July 1, 2018 – June 30, 2019	≥ 80% or ≥ 200 eligible procedures
5	July 1, 2019 – June 30, 2020	≥ 80% or ≥ 200 eligible procedures
6	July 1, 2021 – June 30, 2022	≥ 80% or ≥ 300 eligible procedures
7	July 1, 2022 – June 30, 2023	≥ 85% or ≥ 400 eligible procedures
8	July 1, 2023 – June 30, 2024	≥ 90% or ≥ 500 eligible procedures

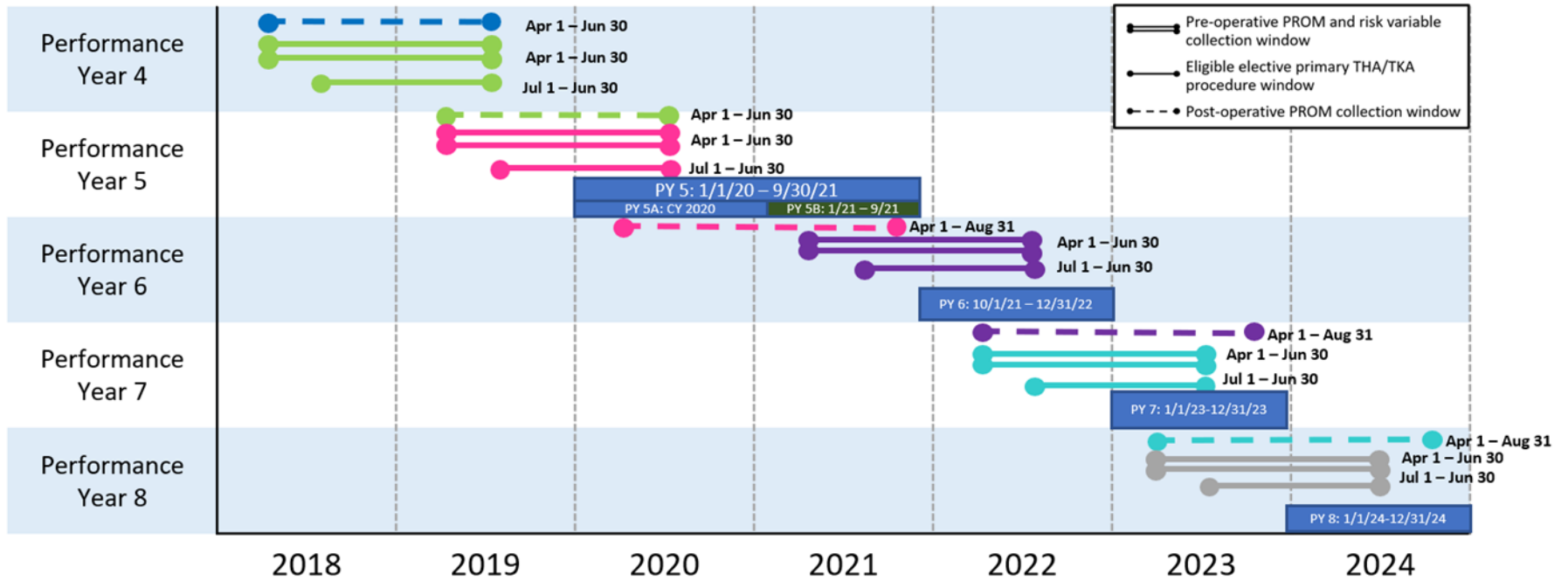
**Timing of PRO and Risk Variable Data Collection and Submission**

Hospitals should collect a patient’s pre-operative data 90 to 0 days (3 months) prior to the patient’s procedure. In PY6 through PY8, the hospital will need to collect this patient’s post-operative data 270 to 427 days (9-14 months) after the patient’s procedure; post-operative data on these patients are submitted in the next performance year following the performance year for which pre-operative data were submitted on these patients. The eligible procedure timeframe and data collection periods for each performance year are presented in the figure below.

**Timeline for PRO and Risk Variable Data Collection by Performance Year**

Figure 1 provides dates for the pre- and post-operative collection time periods for each performance year (double barred and dashed lines, respectively). It also includes the defining dates for the period of eligible elective primary THA/TKA procedures in each performance year (solid lines).

FIGURE 1: ELIGIBLE PROCEDURE AND PRO AND RISK VARIABLE DATA COLLECTION PERIODS BY PERFORMANCE YEAR



PRO data submission must occur within 60 days of the end of the most recent data collection performance period. The data submission deadlines for each performance year of the CJR model are shown in Table 2.

TABLE 2: DEADLINES FOR CJR PRO AND RISK VARIABLE DATA SUBMISSION BY PERFORMANCE YEAR

CJR Performance Year								
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Deadline	October 31, 2016	October 31, 2017	August 31, 2018	August 31, 2019	August 31, 2020	August 31, 2022	September 30, 2023	September 30, 2024
Data to be Submitted	Pre-Operative Data on Performance Year 1 Patients	Post-Operative Data on Performance Year 1 Patients <u>AND</u> Pre-Operative Data on Performance Year 2 Patients	Post-Operative Data on Performance Year 2 Patients <u>AND</u> Pre-Operative Data on Performance Year 3 Patients	Post-Operative Data on Performance Year 3 Patients <u>AND</u> Pre-Operative Data on Performance Year 4 Patients	Post-Operative Data on Performance Year 4 Patients <u>AND</u> Pre-Operative Data on Performance Year 5 Patients	Post-Operative Data on Performance Year 5 Patients <u>AND</u> Pre-Operative Data on Performance Year 6 Patients	Post-Operative Data on Performance Year 6 Patients <u>AND</u> Pre-Operative Data on Performance Year 7 Patients	Post-Operative Data on Performance Year 7 Patients <u>AND</u> Pre-Operative Data on Performance Year 8 Patients

## Additional PRO and Risk Variable Resources

For more information on PRO and risk variable data, including resources such as the Data Collection Template and Data Dictionary, please see the “Hip and Knee Arthroplasty Patient-Reported Outcomes” folder on the Hospital Quality Initiative Measure Methodology webpage, which can be found here: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html>. CJR participant hospitals can also access these resources on the CJR Connect site.

## COMPOSITE QUALITY SCORE METHODOLOGY

The CJR model uses a composite quality score methodology to link quality to payment. The composite quality score for participant hospitals is determined by performance and improvement on two quality measures (THA/TKA Complications measure and the HCAHPS Survey measure), as well as successful submission of PRO and limited risk variable data.

CMS calculates a composite quality score for each participant hospital for each performance period, which equals the sum of:

- the hospital’s quality performance points for the THA/TKA Complications measure;
- the hospital’s quality performance points for HCAHPS Survey measure;
- any additional quality improvement points the hospital may earn as a result of demonstrating improvement on either or both of the quality measures; and,
- if applicable, 2 additional points for successful data submission of PRO and limited risk variable data.

The sum of the components above constitutes the composite quality score, which is capped at 20 points.

## Quality Performance Points for Each Quality Measure

CMS assigns quality performance points for the THA/TKA Complications measure and the HCAHPS Survey measure to each participant hospital.

To determine quality performance points for the THA/TKA Complications and HCAHPS Survey measures, CMS captures each participant hospital’s RSCR as reported in the HIQR Program and calculates each participant hospital’s HLMR score for the CJR model using the method described in the HCAHPS Survey Measure section, respectively.

Then, using these measure values, CMS compares each participant hospital’s measure performance relative to a distribution of the performance of all subsection (d) hospitals that are eligible for payment under IPPS, report the measure, and meet the minimum patient case or survey count for that measure. CMS then assigns each participant hospital to a performance percentile. Finally, the hospital is assigned quality performance points based on where they fall on the performance percentile scale.

Performance on each of the quality measures is weighted, resulting in the maximum quality performance points indicated in Table 3.

**TABLE 3: QUALITY MEASURE WEIGHTS IN COMPOSITE QUALITY SCORE**

Quality Measure	Weight in Composite Quality Score	Maximum Quality Performance Points
THA/TKA Complications measure (NQF #1550)	50%	10.0
HCAHPS Survey measure (NQF #0166)	40%	8.0
PRO and Risk Variable Data Submission	10%	2.0

As shown in Table 4, the individual measure performance points that correspond to each performance percentile have been set to reflect these weights, so they can be summed without adjustment when calculating the total composite quality score.

**TABLE 4: QUALITY PERFORMANCE POINTS BASED ON PERFORMANCE PERCENTILE**

Performance Percentile	THA/TKA Complications Measure Quality Performance Points	HCAHPS Survey Measure Quality Performance Points
≥ 90th	10.00	8.00
≥ 80th and <90th	9.25	7.40
≥ 70th and <80th	8.50	6.80
≥ 60th and <70th	7.75	6.20
≥ 50th and <60th	7.00	5.60
≥ 40th and <50th	6.25	5.00
≥ 30th and <50th	5.50	4.40
<30th	0.0	0.0

For example, if a participant hospital’s performance on the THA/TKA Complications measure falls in the 85th percentile, then that hospital will receive a quality performance score of 9.25 for the THA/TKA Complications measure.

CMS assigns any low volume participant hospitals to the 50th performance percentile for that respective measure. A participant hospital will not have a measure value for the THA/TKA Complications measure if the hospital does not meet the minimum 25 case count. A participant hospital will not have a measure value for the HCAHPS Survey measure if the hospital does not meet the minimum of 100 completed surveys and does not have four consecutive quarters of HCAHPS data.

**Calculate Quality Improvement Points for Each Quality Measure**

CMS also assigns each participant hospital quality improvement points for the THA/TKA Complications measure and the HCAHPS Survey measure.



Improvement points is awarded if a participant hospital's quality performance percentile on a measure increases from the previous performance year by at least two deciles on the performance percentile scale. If a participant hospital's performance percentile on a given measure increases by two deciles or more, CMS adds improvement points to the composite quality score equal to 10 percent of that measure's maximum available quality performance points for the measure (see Table 4).

This means that hospitals are eligible to earn quality improvement points as follows:

- 1 point towards their composite quality score for improvement of at least two deciles on their THA/TKA Complications measure performance percentile;
- 0.8 points towards their composite quality score for improvement of at least two deciles on their HCAHPS Survey measure performance percentile; or
- 1.8 points for improvement of at least two deciles on both the THA/TKA Complications measure and the HCAHPS Survey measure performance percentiles.

In order to be eligible for quality improvement points, a participant hospital must have had a reportable measure performance value for that measure in the prior year.

#### Successful Submission of Patient-Reported Outcomes (PRO) and Risk Variable Data

CMS assigns two points towards the composite quality score for participant hospitals that successfully submit THA/TKA PRO and limited risk variable data and 0 points for participant hospitals that do not successfully submit these data. Successful submission is described above. For more information on PRO and risk variable data, see the "Hip and Knee Arthroplasty Patient-Reported Outcomes" folder on the Hospital Quality Initiative Measure Methodology webpage, which can be found here: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html>. CJR participant hospitals can also access these resources on the CJR Connect site.

#### Composite Quality Score Calculation

CMS calculates a composite quality score for each participant hospital for each performance period, which equals the sum of:

- the hospital's quality performance score for the THA/TKA Complications measure;
- the hospital's quality performance score for HCAHPS Survey measure;
- any additional quality improvement points the hospital may earn as a result of demonstrating improvement on either or both of the quality measures; and,
- if applicable, 2 additional points for successful data submission of patient reported outcomes and limited risk variable data.

The sum of the components above constitutes the composite quality score, which is capped at 20 points.

CJR participant hospitals receive their composite quality scores in the second quarter of the year, following the conclusion of a performance year. The composite quality score is included on hospitals’ reconciliation reports. Reconciliation reports also include the hospital’s measure results and performance percentiles for the THA/TKA Complications measure and HCAHPS Survey measure, and whether or not the hospital successfully submitted PRO and risk variable data.

**PAY-FOR-PERFORMANCE METHODOLOGY**

The composite quality score is incorporated into the pay-for-performance methodology, which assigns a participant hospital to one of four quality categories at the time of reconciliation for a performance year. While prospective quality-adjusted target prices will be provided before the conclusion of a performance year (based on a hospital’s episode benchmark price incorporating a 3% discount), hospitals may experience a different effective discount percentage at reconciliation due to their assigned quality category.

Depending on whether a hospital is eligible for a reconciliation amount or responsible for a repayment to Medicare, the effective discount varies by performance year and the participant hospital’s quality category, as summarized in Table 5. For more information, please refer to section III.C.5.b.(5)(c)(iii) of the November 2015 CJR final rule and section II.C.7 of CJR Three Year Extension.

*TABLE 5: EFFECTIVE DISCOUNT PERCENTAGES BY PERFORMANCE YEAR (PY) AND QUALITY CATEGORY*

PY	Below Acceptable CQS <5		Acceptable CQS >=5 and <6.9		Good CQS >=6.9 and <=15		Excellent CQS >15	
	Recon	Repay	Recon	Repay	Recon	Repay	Recon	Repay
1	IN	NA	3.0	NA	2.0	NA	1.5	NA
2	IN	2.0	3.0	2.0	2.0	1.0	1.5	0.5
3	IN	2.0	3.0	2.0	2.0	1.0	1.5	0.5
4	IN	3.0	3.0	3.0	2.0	2.0	1.5	1.5
5	IN	3.0	3.0	3.0	2.0	2.0	1.5	1.5
6	IN	3.0	3.0	3.0	1.5	1.5	0.0	0.0
7	IN	3.0	3.0	3.0	1.5	1.5	0.0	0.0
8	IN	3.0	3.0	3.0	1.5	1.5	0.0	0.0

CQS = Composite Quality Score

Recon = Effective discount percentage for reconciliation payment

Repay = Effective discount percentage for repayment amount

IN = Ineligible

Participant hospitals must have a composite quality score greater than or equal to 5.0 to be

eligible for a reconciliation payment. Participant hospitals with composite quality scores that place them in the “Good” or “Excellent” quality categories will either receive a higher reconciliation payment or have less repayment responsibility at reconciliation due to their quality performance. In other words, the change in effective (or applicable) discount percentage experienced at reconciliation will provide a potential benefit to hospitals. Participant hospitals were not responsible for any repayment in PY1 of the CJR model.

### Prospective Quality-Adjusted Target Prices

Before the beginning of a performance year, participant hospitals receive their prospective quality-adjusted target prices. CMS determines prospective quality-adjusted target prices using a blend of each participant hospital’s hospital-specific and regional episode expenditures (i.e., episode benchmark price) and a 3 percent discount percentage (i.e., discount factor) to reflect Medicare’s portion of reduced expenditures from the CJR model. The discount percentage included in the prospective quality-adjusted target price assumes that the participant hospital will receive a composite quality score in the “Acceptable” quality category.

Episode Benchmark Price (EBP) = Blend of hospital-specific and regional historical episode payments reflecting expected episode spending

Discount Factor (DF) = 3% of EBP  
(0.03EBP)

Prospective Quality-adjusted Target Price (QTP)= EBP – DF  
(EBP – 0.03EBP)

At the end of a performance year, CMS calculates the composite quality score and uses the pay-for-performance methodology to assign each participant hospital to one of the four quality categories. Application of the effective (or applicable) discount percentage at reconciliation results in a quality-adjusted target price at reconciliation.

QTP at reconciliation= (EBP – 0.03EBP) for “Acceptable” composite quality category  
(EBP – 0.015EBP) for “Good” composite quality category  
(EBP – 0.00EBP) for “Excellent” composite quality category

The quality-adjusted target price at reconciliation is then used to determine the participant hospital’s Net Payment Reconciliation Amount (NPRA). The NPRA is the difference between the participant hospital’s quality-adjusted target price at reconciliation, aggregated across all episodes, and the participant hospital’s actual episode spending for the performance year. Adjustments for post-episode spending and financial loss limits are outside the scope of this

document. Please see section II.C.7. of the November 2015 CJR final rule and section II.C.3 of the May 2021 CJR final rule for more information.

Actual Episode Spending (AES) = Hospital episode expenditures during a performance year

NPRA = Aggregated Quality-adjusted Target Price at Reconciliation – Actual Episode Spending

[(EBP – 0.03EBP) – AES] for “Acceptable” quality

[(EBP – 0.015EBP) – AES] for “Good” quality

[(EBP – 0.00EBP) – AES] for “Excellent” quality

Participant hospitals with composite quality scores that place them in the “Good” or “Excellent” quality categories will either receive a higher reconciliation payment or have less repayment responsibility at reconciliation due to their quality performance, because they will qualify for a smaller discount percentage. In other words, the change in effective (or applicable) discount percentage experienced at reconciliation will be of benefit to hospitals with higher quality scores. Note that hospitals that fail to achieve a “Good” or “Excellent” composite quality score will not have any additional repayment responsibility.

### Stop Loss and Stop Gain Limits

As mentioned earlier, the NPRA incorporates adjustments for limitations on loss (i.e., stop loss) and limitation on gain (i.e., stop gain). The stop gain and stop loss limits vary by performance year, and are determined as a percentage of the aggregated quality-adjusted target price, as summarized in Table 6.

*TABLE 6: PERCENTAGES OF QUALITY-ADJUSTED TARGET PRICE BY PERFORMANCE YEAR (PY)*

PY	Stop Gain Limit	Stop Loss Limit
1	5.0	NA
2	5.0	5.0
3	10.0	10.0
4	20.0	20.0
5	20.0	20.0
6	20.0	20.0
7	20.0	20.0
8	20.0	20.0

Note that stop gain and stop loss calculations are based on the quality-adjusted target price at reconciliation, aggregated across all episodes. Please see section II.C.8. of the November 2015 CJR final rule and section II.C.5 of the May 2021 CJR final rule for more details.

Stop Gain = (0.05 QTP) for PY1 and PY2  
(0.10 QTP) for PY 3

(0.20 QTP) for PY4 and PY5  
(0.20 QTP) for PY6, PY7 and PY8

Stop Loss = (0.05 QTP) for PY2  
(0.10 QTP) for PY3  
(0.20 QTP) for PY4 and PY5  
(0.20 QTP) for PY6, PY7 and PY8

The concepts above are applied in the following examples. Please note that although reconciliation will be performed in the aggregate across all episodes in a given hospital, in the following examples the participant hospital has only one episode for simplicity.

*EXAMPLE 1: Participant Hospital with CQS=8.25, "Good" Quality Category, PY 1*

Episode Benchmark Price  
(EBP) = \$20,000

Discount Factor (DF) = (0.03EBP)  
(0.03 \* \$20,000)  
= \$600

Prospective Quality-adjusted (EBP – DF)  
Target Price (QTP) = \$20,000 – (0.03 \* \$20,000)  
\$20,000 – \$600  
= \$19,400

Quality-adjusted Target Price (EBP – 0.02EBP)  
(QTP) at Reconciliation = \$20,000 – (0.02 \* \$20,000)  
\$20,000 – \$400  
= \$19,600

Actual Episode Spending  
(AES) = \$18,500

Raw NPRA = QTP – AES  
[(EBP – 0.02EBP) – AES]  
(\$20,000 – (0.02 \* \$20,000)) – \$18,500  
\$19,600 – \$18,500  
= \$1,100

$$\begin{aligned} \text{Stop Gain} &= (0.05\text{QTP}) \\ &= (0.05 * \$19,600) \\ &= \$980 \end{aligned}$$

$$\text{NPRA} = \$980$$

*EXAMPLE 2: Participant Hospital with CQS=16.00, "Excellent" Quality Category, PY 3*

$$\begin{aligned} \text{Episode Benchmark Price} \\ (\text{EBP}) &= \$20,000 \end{aligned}$$

$$\begin{aligned} \text{Discount Factor (DF)} &= (0.03\text{EBP}) \\ &= (0.03 * \$20,000) \\ &= \$600 \end{aligned}$$

$$\begin{aligned} \text{Prospective Quality-adjusted} & (\text{EBP} - \text{DF}) \\ \text{Target Price (QTP)} &= \$20,000 - (0.03 * \$20,000) \\ &= \$20,000 - \$600 \\ &= \$19,400 \end{aligned}$$

$$\begin{aligned} \text{QTP at Reconciliation} &= (\text{EBP} - 0.005\text{EBP}) \\ &= \$20,000 - (0.005 * \$20,000) \\ &= \$20,000 - \$100 \\ &= \$19,900 \end{aligned}$$

$$\begin{aligned} \text{Actual Episode Spending (AES)} \\ &= \$27,000 \end{aligned}$$

$$\begin{aligned} \text{Raw NPRA} &= \text{QTP} - \text{AES} \\ &= [(\text{EBP} - 0.005\text{EBP}) - \text{AES}] \\ &= (\$20,000 - (0.005 * \$20,000)) - \$27,000 \\ &= \$19,900 - \$27,000 \\ &= -\$7,100 \end{aligned}$$

$$\begin{aligned} \text{Stop Loss} &= (0.1\text{QTP}) \\ &= (0.1 * \$19,700) \\ &= \$1,970 \end{aligned}$$

$$\text{NPRA} = -\$1,970$$

*EXAMPLE 3: Participant Hospital with CQS=15.30, "Excellent" Quality Category, PY 4*

In rare instances, a participant hospital’s assigned quality category may change the effective (or applicable) discount factor applied to the quality-adjusted target price at reconciliation in such a way that it could change whether a hospital qualifies for a reconciliation payment or has to make a repayment to Medicare.

For example, if the hospital's benchmark price is \$20,000, their prospective quality-adjusted target price at the beginning of the performance year would be \$19,400. If the hospital reduced spending to \$19,600, but achieved a composite quality score in the “Excellent” category, then the hospital would not owe Medicare a repayment of \$200. Instead, the hospital in the “Excellent” category would experience a quality-adjusted target price of \$19,700 at reconciliation. Therefore, the hospital is eligible to receive a reconciliation payment of \$100, even though the actual spending was more than the prospective quality-adjusted target price.

$$\begin{aligned} \text{Episode Benchmark Price} \\ (\text{EBP}) &= \$20,000 \end{aligned}$$

$$\begin{aligned} \text{Discount Factor (DF)} &= (0.03\text{EBP}) \\ &= (0.03 * \$20,000) \\ &= \$600 \end{aligned}$$

$$\begin{aligned} \text{Prospective Quality-adjusted} & (\text{EBP} - \text{DF}) \\ \text{Target Price (QTP)} &= \$20,000 - (0.03 * \$20,000) \\ &= \$20,000 - \$600 \\ &= \$19,400 \end{aligned}$$

$$\begin{aligned} \text{QTP at Reconciliation} &= (\text{EBP} - 0.015\text{EBP}) \\ &= \$20,000 - (0.015 * \$20,000) \\ &= \$20,000 - \$300 \\ &= \$19,700 \end{aligned}$$

$$\text{Actual Spending (AS)} = \$19,600$$

$$\begin{aligned} \text{NPRA} &= \text{QTP} - \text{AS} \\ &= [(\text{EBP} - 0.015\text{EBP})] - \text{AS} \\ &= (\$20,000 - (0.015 * \$20,000)) - \$19,600 \\ &= \$19,700 - \$19,600 \\ &= \$100 \end{aligned}$$

$$\begin{aligned} \text{Stop Gain} &= (0.20\text{QTP}) \\ &= (0.20 * \$19,700) \\ &= \$3,940 \end{aligned}$$

$$\text{Final NPRA} = \$100$$

**PUBLIC REPORTING OF QUALITY DATA ON HOSPITAL COMPARE WEBSITE**

CMS publicly reports each CJR participant hospital’s quality measure results on the <https://data.cms.gov/provider-data/search>. The reporting periods for the THA/TKA Complications measure are consistent with HIQR Program performance periods. The public reporting of the HCAHPS survey measure results for the CJR model will be based on a different set of quarters than the HCAHPS scores concurrently reported for the HIQR Program.

*TABLE 7: SUMMARY OF QUALITY MEASURES PERFORMANCE AND PUBLIC REPORTING PERIODS*

CJR Model Timeline		THA/TKA Complications Measure		HCAHPS Survey Measure	
Performance Year	Reporting Year	Performance Period	HIQR Public Reporting	Performance Period	HIQR Public Reporting
1	2017	4/1/13 – 3/31/16	Annually - July	7/1/15 – 6/30/16	Quarterly – April
2	2018	4/1/14 – 3/31/17	Annually - July	7/1/16 – 6/30/17	Quarterly – April
3	2019	4/1/15 – 3/31/18	Annually - July	7/1/17 – 6/30/18	Quarterly – April
4	2020	4/1/16 – 3/31/19	Annually - July	7/1/18 – 6/30/19	Quarterly – April
5.1	2021	4/1/17 – 3/31/20	Annually - July	7/1/19 – 6/30/20	Quarterly – April
5.2	2023	4/1/18 – 3/31/21	Annually - July	7/1/20 – 6/30/21	Quarterly – April
6	2024	4/1/19 – 3/31/22	Annually - July	7/1/21 – 6/30/22	Quarterly – April
7	2025	4/1/20 – 3/31/23	Annually - July	7/1/22 – 6/30/23	Quarterly – April
8	2026	4/1/21 – 3/31/24	Annually - July	7/1/23 – 6/30/24	Quarterly – April

Note: Data from 1st and 2nd quarters of 2020 are not being reported due to the impact of the COVID-19 pandemic.

CMS posts the publicly-reported CJR model quality measure data for each participant hospital in a downloadable format in a CJR model-specific section of the Hospital Compare website. The CJR model quality measure data is posted at the same time as July public reporting for the HIQR Program.

CMS publicly acknowledges hospitals that have successfully submitted PRO and limited risk variable data submission by placing a symbol next to the hospital’s name on the CJR model-specific section of the Hospital Compare website.