

## Quality Measures Fact Sheet

**Hospital-Level Risk-Standardized Complication Rate (RSCR)  
Following Elective Primary Total Hip Arthroplasty (THA) and/or  
Total Knee Arthroplasty (TKA) (NQF #1550)  
National Quality Strategy Domain: Patient Safety**

*Quality Measures Sets: Administrative and Alternate*

*Data Source: Hospital Inpatient Quality Reporting Program*

### BPCI Advanced and Quality

The Center for Medicare & Medicaid Innovation's (the CMS Innovation Center's) BPCI Advanced Model rewards health care providers for delivering services more efficiently, supports enhanced care coordination, and recognizes high quality care. Hospitals and clinicians should work collaboratively to achieve these goals, which have the potential to improve the BPCI Advanced Beneficiary experience and align to the CMS Quality Strategy goals of promoting effective communication and care coordination, highlighting best practices, and making care safer and more affordable. A goal of the BPCI Advanced Model is to promote seamless, patient-centered care throughout each Clinical Episode, regardless of who is responsible for a specific element of that care.

### Background on Total Hip Arthroplasty and Total Knee Arthroplasty Complications

Total Hip Arthroplasty (THA) and Total Knee Arthroplasty (TKA) procedures are common among the Medicare population and, over time, have become relatively efficient, with regimented steps to encourage safety and best practices. At the same time, complications from THA and TKA are burdensome to patients, impacting not only their length of recovery but their mobility as well.

### CMS Innovation Center Rationale for Including the Hospital-Level RSCR Following Elective Primary THA and/or TKA Measure in BPCI Advanced

The entire process for THA and TKA from inpatient admission through recovery can be lengthy, and hospitals and care teams should collaborate to ensure that patients undergoing THA and TKA have a coordinated care process. The CMS Innovation Center has selected the Hospital-Level RSCR Following Elective Primary THA and/or TKA Measure for BPCI Advanced because reporting the complication rate will inform providers about opportunities to improve care. The measure will also highlight ways to strengthen incentives for quality improvement and ultimately improve the quality of care received by

Medicare beneficiaries. CMS uses, has used, or is currently using this in the following Federal programs: CMS' Partnership for Patients and the Hospital Inpatient Quality Reporting (IQR) Program.

## Applicable Clinical Episodes

The Hospital-Level RSCR Following Elective Primary THA and/or TKA measure is included in both the Administrative and Alternate Quality Measures Sets and applies to the following inpatient and outpatient Clinical Episodes<sup>1</sup>:

- Double Joint Replacement of the Lower Extremity (Inpatient): Medicare Severity–Diagnosis-Related Groups (MS-DRGs) 461 and 462
- Major Joint Replacement of the Lower Extremity (Inpatient and Outpatient): MS-DRGs 469, 470, 521, and 522; Healthcare Common Procedure Coding System (HCPCS) 27447

## Measure Specifications

The Hospital-Level RSCR Following Elective Primary THA and/or TKA measure follows NQF #1550 measure specifications. This measure estimates a hospital-level RSCR associated with elective primary THA and TKA procedures for Medicare beneficiaries. Performance on the Hospital-Level RSCR Following Elective Primary THA and/or TKA measure is risk standardized and is the same as the Hospital IQR Program Hospital-Level RSCR Following Elective Primary THA and/or TKA measure reported on Hospital Compare, with the exception that the CMS Innovation Center adjusted the reporting period to the calendar year to align with the BPCI Advanced Model. The CMS Innovation Center will calculate Acute Care Hospital (ACH) performance at the hospital level for all Medicare beneficiaries included in the denominator. For Physician Group Practices (PGPs), the CMS Innovation Center will calculate the measure as specified at the hospital level, then weight the measure based on PGP Clinical Episode volume for each ACH where a PGP triggers an episode.

## Denominator

The denominator for the Hospital-Level RSCR Following Elective Primary THA and/or TKA measure includes all Medicare fee-for-service (FFS) beneficiaries aged 65 years and older who are hospitalized for elective primary THA and/or TKA procedures. These Medicare FFS beneficiaries must have 12 months of continuous Medicare Part A and B enrollment prior to the THA and/or TKA procedure.

All MS-DRG triggers apply, but this measure only applies to patients with an elective primary THA and/or TKA procedure. The exclusions for this measure include patients:

- without at least 90 days post-discharge enrollment in Medicare FFS
- discharged against medical advice
- who had more than two THA and/or TKA procedure codes during the index hospitalization

## Numerator

The numerator includes individuals in the previously defined denominator who experience a complication with an elective primary THA and/or TKA procedure. If any Medicare beneficiary has a complication occurring during the index admission (not coded present on arrival), or during a

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<sup>1</sup> MS-DRGs are up to date as of Model Year 3 (2020) and will be updated for Model Year 4 as needed.

readmission up to 90 days post-date of the index admission, the measure will include them in the numerator.

## Measure Submission

The CMS Innovation Center will calculate this measure using Medicare claims data and does not require action or reporting by Model Participants beyond what is currently involved in the Hospital IQR Program. To better align with the performance years of the BPCI Advanced Model, the Model uses January 1 through December 31 for measure calculation. The date of discharge on the index admission will determine the calendar year in which the claim belongs.

## Revisions to the Published Specifications

The BPCI Advanced version of this measure is calculated using a one-year period of data instead of a three-year period. In Model Year 4, the claims data will be collected from January 1, 2021 to December 31, 2021.

## Composite Quality Score

The Hospital-Level RSCR Following Elective Primary THA and/or TKA measure is one component of the BPCI Advanced Composite Quality Score (CQS) calculation. The CMS Innovation Center uses the CQS to adjust a portion of any Positive Total Reconciliation Amount and any Negative Total Reconciliation Amount. The CQS adjustment will not adjust the Positive Total Reconciliation Amount down by more than 10 percent, nor will it adjust the Negative Total Reconciliation Amount up by more than 10 percent. More information is available at the BPCI Advanced website provided below.

## Other Resources

Organization/Resource	Website Address
NQF #1550 specifications	<a href="http://www.qualityforum.org/QPS/1550">http://www.qualityforum.org/QPS/1550</a>
BPCI Advanced	<a href="https://innovation.cms.gov/initiatives/bpci-advanced">https://innovation.cms.gov/initiatives/bpci-advanced</a>
Inpatient Quality Reporting	<a href="https://www.cms.gov/newsroom/fact-sheets/cms-improve-quality-care-during-hospital-inpatient-stays">https://www.cms.gov/newsroom/fact-sheets/cms-improve-quality-care-during-hospital-inpatient-stays</a>
CMS/Medicare Learning Network Major Joint Replacement	<a href="https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/jointreplacement-ICN909065.pdf">https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/jointreplacement-ICN909065.pdf</a>