Comprehensive Care for Joint Replacement Model Reporting of Total Hip/Knee Arthroplasty (THA/TKA) Patient-Reported Outcome and Risk Variable Data

In 2015, the Centers for Medicare & Medicaid Services (CMS) finalized regulations for the Comprehensive Care for Joint Replacement (CJR) model beginning April 1, 2016. The model focuses on Medicare beneficiaries undergoing lower extremity joint replacements (MS-DRG 469 or 470).

The option to submit patient-reported outcomes (PRO) and limited risk variable data is a component of the CJR model. PRO data submission is one of three quality components that can affect a hospital's composite quality score under the CJR model. For more information on the composite quality score and other aspects of the CJR model, please visit https://innovation.cms.gov/initiatives/cjr.

Which patients are eligible for PRO and risk variable data collection?

If patients at a CJR participant hospital meet the selection criteria as specified in the CJR final rule (Figure 1) and will have a qualifying procedure performed during the time period in each Performance Year (PY) denoted by the solid lines in Figure 2, then the patients are eligible for PRO and risk variable data collection, regardless of the provider's affiliation with another CMS model. Please note that PRO eligible patients overlap with, but are distinct from, patients included in CJR model episode specified by MS-DRGs 469 and 470. A subset of ICD-10 codes in MS-DRGs 469 and 470 (and 461 & 462 for bilateral procedures) are used to identify eligible patients based on the criteria outlined in the THA/TKA Patient Selection Flowchart (Figure 1).

Which PRO and risk variable data elements should be collected and submitted to satisfy the CJR requirements?

CMS worked with orthopedic surgeons and technical experts to minimize the burden of data collection on patients, surgeons, and hospitals. Pre-operatively, hospitals must submit 100% of questions from one of two generic PRO surveys (the VR-12 or PROMIS-Global); 100% of questions from the joint-specific HOOS/KOOS JR. survey or the HOOS/KOOS subscales; and risk variables and identifiers. Post-operatively, only the PRO questions and identifiers are required. The data elements are:

Required pre- and post-operative PRO instruments

- VR-12 ***OR*** PROMIS Global PROMs; ***AND***
- HOOS/KOOS JR. ***OR*** HOOS/KOOS subscales
  - HOOS subscales: pain and function, daily living
  - KOOS subscales: stiffness, pain, and function, daily living

Required identifiers with *all* (pre- and post-operative) submitted data

- Medicare Health Insurance Claim Number [HICN], Railroad Retirement Board Medicare Number, or Medicare Billing Identifier [MBI])
- Date of Birth

Required risk variables with pre-operative submitted data *only*

- Race and Ethnicity
- Body mass index (BMI) or Height (cm) and Weight (kg)
- Patient-reported Health Literacy Screening (SILS2) Questionnaire
- Pre-operative Use of Narcotics
- Patient-reported Pain in Non-operative Lower Extremity Joint
- Patient-reported Back Pain (Oswestry Index Question)

Required identifiers with post-operative submitted data *only*

- Date of Admission
- Date of Procedure

Requested variables with pre-and post-operative submitted data

- Medicare Provider Number (CMS Certification Number, or CCN)
- Performance Year
- Survey Respondent (if not patient)
- Date of Collection
- Mode of Collection

Collecting PRO and risk variable data on your THA/TKA patients can:

- Increase your hospital's CJR composite quality score by 2 points (if you successfully meet the submission criteria outlined in the 2015 CJR final rule)
- Provide patients and providers with objective data on surgical outcomes
- Give your hospital recognition on *Hospital Compare* for successfully submitting PRO data
- Get a head start on building PRO collection infrastructure to align with CMS's future direction of reporting patient-reported outcome performance measures (PRO-PMs)
- Contribute data that will help to inform the development of a hospital-level, risk-adjusted patient-reported outcome performance measure (PRO-PM) for elective, primary THA/TKA surgical procedures

For additional questions or comments, please contact:

CJR Model Support Team
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When should PRO and other data elements be collected?

- **Pre-operative data:** Collect the following between 90 to 0 days **prior** to the eligible elective, primary THA/TKA procedure:
  - 1 generic and 1 THA/TKA-specific PRO instrument plus risk variables and identifiers
- **Post-operative data:** Collect the following between 270 to 365 days **after** the eligible elective, primary THA/TKA procedure:
  - 1 generic and 1 THA/TKA-specific PRO instrument plus identifiers
- Risk variables are collected *only* pre-operatively

Note: Post-operative data **must** be collected on the **same** patients from whom you collected pre-operative data in the prior PY. The post-operative surveys that you use **must** be the **same** as the one that you used to collect the patient's pre-operative data.
Refer to the Timeline for PRO and Risk Variable Data Collection by Performance Year (Figure 2) for eligible procedure and data collection windows, and Table 1 for data submission deadlines for given data elements in CJR PYs 1-5. For the minimum case requirements for eligible procedures in each PY, see Table 2.

What are the steps to successfully collect and submit PRO and risk variable data to CMS?

1) To satisfy CJR's submission requirements, hospitals must follow the specific criteria for each performance year. Except in PY 1, successful submission requires post-operative data for eligible THA/TKA procedures performed in the **prior** performance year **AND** pre-operative data for eligible THA/TKA procedures performed in the **current** performance year. For example:
   - In PY 5, post-operative data on at least 80% or at least 200 of a hospital's eligible procedures performed from July 1, 2018 to June 30, 2019, obtained from the same patients from whom hospitals collected pre-operative data in PY 4;
   - **AND** pre-operative data on at least 80% or at least 200 of a hospital's eligible procedures performed from July 1, 2019 to June 30, 2020 (the PY 5 procedure dates).
2) Consider collecting more than the minimum required pre-operative PRO data for success in any given performance year; it is sometimes hard to get post-operative PRO data on every patient, so be sure to leave yourself some room for patients who are lost to follow-up.
3) Listen to the CJR webinars and remain in close communications with CMS for additional data submission guidance.
   - All webinar materials are available to CJR participant hospitals for download on the *CJR Connect* site in the PRO Data Collection content pack under the Libraries tab at https://app.innovation.cms.gov/CJRConnect/
4) Visit *CJR Connect* for PRO resources such as the PRO Data Collection Template and accompanying Data Dictionary. (If there are additional individuals associated with your hospital who would like access to CJR Connect, they should go to https://app.innovation.cms.gov/CJRConnect, click on "New User", and complete the self-registration form.)
   - In PY 5, hospitals will use Managed File Transfer (MFT) to submit their PRO and risk variable data. This method is replacing the method used in PY 3 and PY 4—Secure File Transfer (SFT)—which will no longer be available to submit PRO data.
   - Hospitals should use the macro-enabled PRO Data Collection Template (which is an .xlsm file) for data collection and submission.
5) Obtain your hospital's Health Care Quality Information Systems (HCQIS) Access Roles and Profile (HARP) and MFT account login information so that you are able to submit data using the MFT platform.
   - For questions about your hospital's HARP/MFT account or the process for submitting data through this account, please contact the *QualityNet* Service Desk at: qnetsupport@hcqis.org or over the phone: (866) 288-8912; TTY: (877) 715-6222.
6) Consider educating your eligible patients on why PRO data is important and to encourage them to complete the surveys. Remind your patients at every visit.
   - A patient postcard template is available for download from *CJR Connect*. This resource is customizable and

hospitals can use this as a reminder for patients to complete and send in their PRO surveys.

7) Have materials/resources available for patients if they have questions.
   - A patient brochure template is available for download from *CJR Connect*. This resource is customizable and hospitals can add content applicable to their institution, and provide this as educational material for patients to bring home.

8) Consider training your staff to let eligible patients know about the value and importance of PRO data.

9) Ensure PRO data are collected both pre- and post-operatively for eligible patients/procedures.
   - PRO surveys can be obtained through the following webpages:
     - **HOOS:** http://www.koos.nu/
     - **HOOS Jr.:** https://www.hss.edu/hoos-jr-koos-jr-outcomes-surveys.asp
     - **KOOS:** http://www.koos.nu/
     - **KOOS Jr.:** https://www.hss.edu/hoos-jr-koos-jr-outcomes-surveys.asp
     - **VR-12:** http://www.bu.edu/sph/research/research-landing-page/vr-36-vr-12-and-vr-6d/
     - **PROMIS-Global:** http://www.nihpromis.org/measures/availableinstruments

Table 1: Deadlines for CJR PRO and Risk Variable Data Submission by Performance Year

This table provides the due dates for successful PRO and risk variable data ***submission***. It also reinforces that, in PYs 2-5, hospitals will need to submit completed post-operative data for the *prior* year's patients and completed pre-operative data for the *current* year's patients in order to qualify as having successfully submitted PRO and risk variable data for the CJR model.

	PY 1	PY 2	PY 3	PY 4	PY 5
Deadline	October 31, 2016	October 31, 2017	August 31, 2018	August 31, 2019	August 31, 2020
Data Being Submitted	Pre-Operative Data on PY 1 Patients	Post-Operative Data on PY 1 Patients *AND* Pre-Operative Data on PY 2 Patients	Post-Operative Data on PY 2 Patients *AND* Pre-Operative Data on PY 3 Patients	Post-Operative Data on PY 3 Patients *AND* Pre-Operative Data on PY 4 Patients	Post-Operative Data on PY 4 Patients *AND* Pre-Operative Data on PY 5 Patients

Table 2: Minimum Case Requirements for Eligible Procedures in Each Performance Year (PY) for Successful Data Collection

PY	Eligible THA/TKA Procedures Performed During	PRO and Risk Variable Submission Requirements
1	July 1, 2016 – August 31, 2016	≥ 50% or ≥ 50 eligible procedures
2	September 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

Figure 1: Patient Selection Flowchart for Determining Eligible Elective Primary THA/TKA Procedures

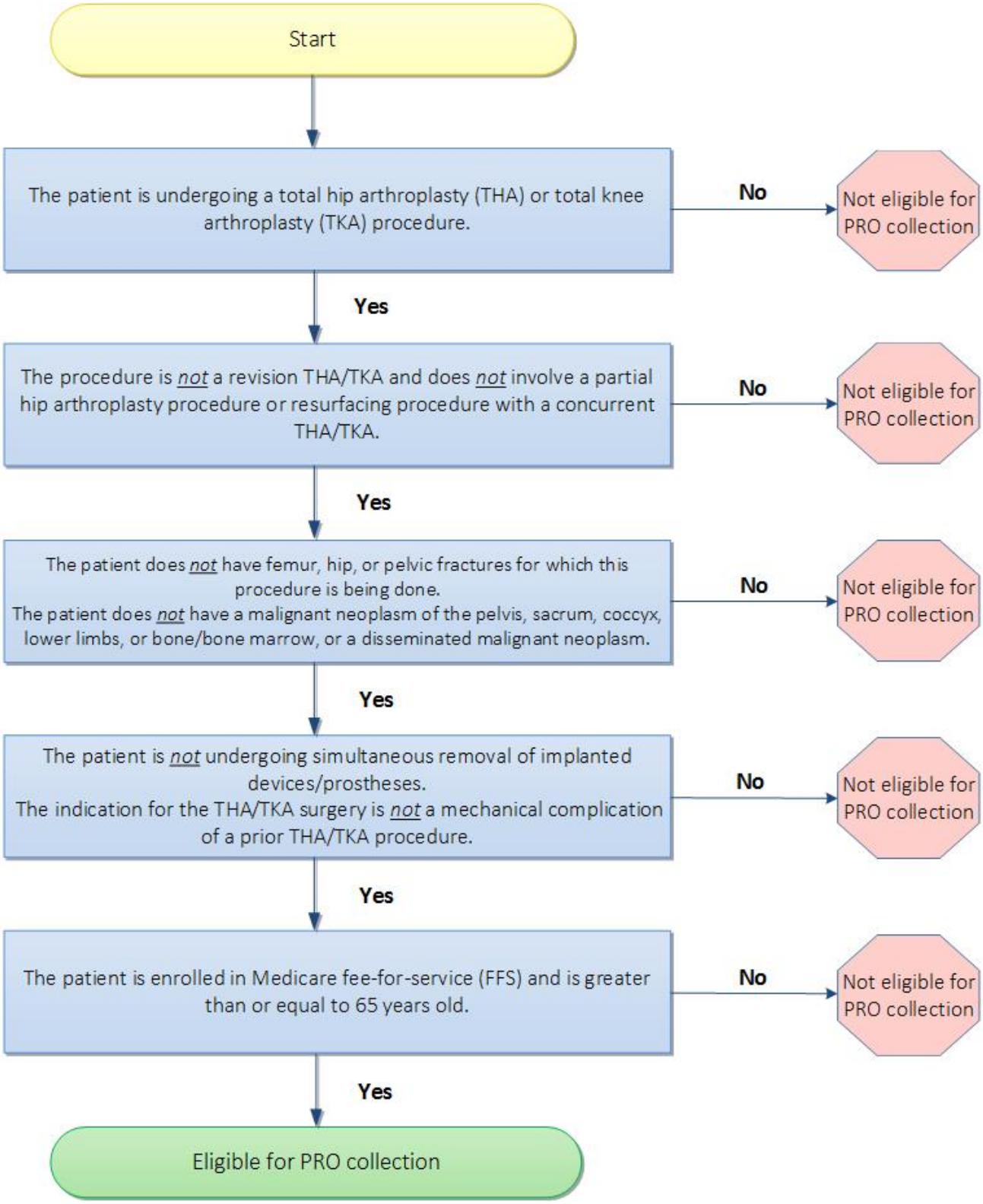

Figure 2: Timeline for PRO and Risk Variable Data Collection by Performance Year

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