



# THA/TKA Patient-Reported Outcome Performance Measure (PRO-PM)

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# Disclosures

Consulting: Smith & Nephew, Onkos Surgical

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Committee membership: AAHKS research committee

**I have something to disclose.**

**All relevant financial  
relationships  
have been mitigated.**

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# Purpose

- Variation in THA/TKA care across USA
- CMS: *“The goal of a hospital-level outcome measure is to capture the full spectrum of care to incentivize collaboration and shared responsibility for improving patients’ health and reducing their burden of disease.”*
- Measure relatable for patients

require reporting of this measure until after several years’ worth of the measure data have been validated.

*Response:* We appreciate the commenters’ feedback on our proposal to adopt, but not yet require, reporting on this eCQM. We believe that our proposal is balanced so as to provide hospitals with the option of reporting on this new eCQM. The addition of this eCQM further advances CMS’ goal of transitioning to a fully digital quality measures landscape, and we will take the commenters’ suggestion to make this eCQM mandatory under consideration as we begin to collect data. We note that any proposal to require reporting this eCQM would be made through future notice-and-comment rulemaking.

*Comment:* Several commenters expressed concern about implementing and operationalizing this measure given the detailed and complex nature of the measure specification and because of competing EHR-related proposals and reporting requirements. They believe that implementation would require updates to EHRs and workflows. A commenter requested additional implementation guidance to support standardized implementation across hospitals.

*Response:* We appreciate the commenters’ concerns about implementation of the measure and note that the measure uses data collected through hospital’s EHRs and is designed to be calculated by the hospital’s CEHRT, thereby reducing reporting burden and complexity. Regarding resource commitments and the proposed adoption schedule, we believe that the design of the measure is balanced to provide hospitals sufficient

guide, and other resources, which can be found on the eCQ Resource Center website, available at: <https://ecqi.healthit.gov>.

After consideration of the public comments we received, we are finalizing our proposal as proposed.

g. Hospital-Level, Risk Standardized Patient-Reported Outcomes Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) (NQF #3559), Beginning With Two Voluntary Reporting Periods in CYs 2025 and 2026, Followed by Mandatory Reporting for Eligible Elective Procedures Occurring July 1, 2025 Through June 30, 2026, Impacting the FY 2028 Payment Determination and for Subsequent Years

## (1) Background

Approximately six million adults aged 65 or older suffer from osteoarthritis in the U.S.<sup>862</sup> Osteoarthritis accounts for more than half of all arthritis-related hospitalizations,<sup>863</sup> and in 2013 there were approximately 1,023,000 hospitalizations for osteoarthritis.<sup>864</sup> Hip and knee osteoarthritis is one of the leading causes of disability among non-institutionalized adults,<sup>865</sup> and roughly 80 percent of patients with osteoarthritis have some limitation in mobility.<sup>866</sup> Elective total hip arthroplasty (THA) and total knee arthroplasty (TKA) are most commonly performed for degenerative joint disease or osteoarthritis, which affects more than 30 million Americans.<sup>867</sup> THA and TKA offer significant improvement in quality of life by decreasing pain and improving

function in a majority of patients, without resulting in a high risk of complications or death.<sup>868 869 870 871</sup> However, not all patients experience benefit from these procedures.<sup>872</sup> Many patients note that their pre-operative expectations for functional improvement have not been met.<sup>873 874 875 876</sup> In addition, clinical practice variation has been well documented in the U.S.,<sup>877 878 879</sup> readmission and complication rates vary across hospitals,<sup>880 881</sup> and international

<sup>868</sup> Rissanen P., Aro S., Slati P., Sintonen H., Paavolainen P. Health and quality of life before and after hip or knee arthroplasty. *The Journal of arthroplasty*. 1995;10(2):169–175.

<sup>869</sup> Wiklund L., Ronnquist B. A comparison of quality of life before and after arthroplasty in patients who had arthritis of the hip joint. *The Journal of bone and joint surgery. American volume*. 1991;73(5):765–769.

<sup>870</sup> Laupacis A., Bourne R., Rorabeck C., et al. The effect of elective total hip replacement on health-related quality of life. *The Journal of bone and joint surgery. American volume*. 1995;77(11):1619–1626.

<sup>871</sup> Ritter M.A., Althoff M.J., Keating E.M., Faris P.M., Meding J.B. Comparative outcomes of total joint arthroplasty. *The Journal of arthroplasty*. 1995;10(6):737–741.

<sup>872</sup> National Joint Registry. National Joint Registry for England and Wales 9th Annual Report 2012. Available at: <https://www.hqip.org.uk/wp-content/uploads/2018/02/national-joint-registry-9th-annual-report-2012.pdf>.

<sup>873</sup> Suda A.J., Seeger J.B., Bitsch R.G., Krueger M., Clarus M. Are patients’ expectations of hip and knee arthroplasty fulfilled? A prospective study of 130 patients. *Orthopedics*. 2010;33(2):76–80.

<sup>874</sup> Ghomrawi H.M., Franco Ferrando N., Mandl L.A., Do H., Noor N., Gonzalez Della Valle A. How Often are Patient and Surgeon Recovery Expectations for Total Joint Arthroplasty Aligned? Results of a Pilot Study. *HSS journal: The musculoskeletal journal of Hospital for Special Surgery*. 2017;3(3):229–234.

<sup>875</sup> Harris L.A., Harris A.M., Naylor J.M., Adie S., Mittal R., Dao A.T. Discordance between patient and surgeon satisfaction after total joint arthroplasty. *The Journal of arthroplasty*.

<sup>862</sup> Arthritis Foundation. Arthritis By the

# Data capture

- All Medicare fee-for service beneficiaries
- Age 65 and older
- Currently INPATIENT THA and TKA
  - Outpatient announced

**Table 1. Data items to be collected**

90 - 0 days prior to surgery	300 – 425 days after surgery
Medicare provider number	Medicare provider number
Medicare Health Insurance Claim number (HIC)	Medicare Health Insurance Claim number (HIC)
Medicare beneficiary number (MBI)	Medicare beneficiary number (MBI)
Date of birth	Date of birth
Race, Ethnicity	
BMI or weight (kg) and height (cm)	
	Date and type of procedure
	Date of Admission to anchor hospital
Date of PRO collection	Date of PRO collection
Mode of PRO collection, person collection PRO	Mode of PRO collection, person collection PRO
HOOS, JR or KOOS, JR	HOOS, JR or KOOS, JR
PROMIS Global Mental Health subscale OR RAND VR-12 Mental Health subscale	PROMIS Global Mental Health subscale OR RAND VR-12 Mental Health subscale
Single-Item Health Literacy screening (SILS2)	
Total painful joint count (pain in non-operative lower extremity joint)	
Quantified spinal pain (Oswestry index question)	
Chronic (≥90 days) narcotic use	
Body mass index (weight and height)	

# Risk Adjustment

**Table 2. Risk variables included in THA/TKA PRO-PM risk adjustment model**

Age, in years
Male sex
BMI, in kg per m2
Health literacy (assessed by response to SILS2)
Back pain at preoperative assessment (Oswestry Disability Index Question)
Pain in non-operative lower extremity joint (Total painful joint count)
Narcotic use for >90 days
Baseline PROMIS-Global Mental Health subscale score (or, VR-12 crosswalk to PROMIS-global)
Severe infection; other infectious diseases
Liver disease
Diabetes mellitus (DM) or DM complications
Rheumatoid arthritis and inflammatory connective tissue disease
Depression
Other psychiatric disorders
Coronary atherosclerosis or angina
Vascular or circulatory disease
Renal failure

# THA/TKA PRO-PM Measure

- Proportion of risk-standardized THA/TKA patients who met or exceeded the substantial clinical benefit (SCB) threshold between preoperative and postoperative HOOS, JR or KOOS, JR of the total of collected patients
- SCB:
  - HOOS JR – 22 points
  - KOOS JR – 20 points

$$\frac{\text{Risk – adjusted patients meeting SCB threshold (yes|no)}}{\text{All eligible Medicare THA/TKA}} = \text{\% of patients with SCB at reporting hospital}$$

# Reporting periods

Reporting period	Performance period	Pre-operative data collection window	Pre-operative data submission deadline	Post-operative data collection window	Post-operative data submission deadline
Voluntary period 1 (2025)	1/1/23 – 6/30/23	10/3/22 – 6/30/23	10/2/23	10/28/23 – 8/24/24	9/30/24
Voluntary period 2 (2026)	7/1/23 – 6/30/24	4/2/23 – 6/30/24	9/30/24	4/26/24 – 8/29/25	9/30/25
<b>Mandatory reporting (2027)</b>	<b>7/1/24 – 6/30/25</b>	<b>4/2/24 – 6/30/25</b>	<b>9/30/25</b>	<b>4/27/25 – 8/29/26</b>	<b>9/30/26</b>

## Requirements

- Minimum 50% collection rate
- Fiscal year 2028 CMS Annual Payment penalties

# Discussion

- May decrease access to care
  - Surgeons hesitant to operate when substantial clinical benefit (SCB) may not be obtained
  - Higher complexity THA and TKA at tertiary centers not captured in CPT 27447 or CPT 27130
- Collection burden:
  - Patients – increased number of survey – survey fatigue
  - Rural hospital – require investments
    - Nurse navigators
    - Third party reporting (AJRR, commercial)



# Public Reporting – Medicare.gov

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1.

**UPMC Mercy** 

0.4 mi

ACUTE CARE HOSPITALS

1400 Locust Street  
Pittsburgh, PA 15219  
(412) 232-8111


Overall star rating

★★★★☆

Patient survey rating

★★★★☆

Compare



2.

**VA Pittsburgh Healthcare System - Univ Dr**

0.8 mi

ACUTE CARE - VETERANS ADMINISTRATION

University Drive  
Pittsburgh, PA 15240  
(412) 688-6100


Overall star rating


★☆☆☆☆

Patient survey rating


★★★★☆

Compare



 Please note, at this time, Medicare won't pay for services at this hospital except in very limited circumstances.

3.

**UPMC Presbyterian Shadyside** 

1 mi

ACUTE CARE HOSPITALS

200 Lothrop Street  
Pittsburgh, PA 15213  
(412) 647-8788


Overall star rating

★★★★★

Patient survey rating

★★★★☆

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### Commentary

## Implementation of the New Medicare-Mandated Patient-Reported Outcomes After Joint Arthroplasty Performance Measure



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# Thanks to AAHKS HPF





Thank you!  
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