Advanced Total Hip and Knee Replacement Certification

American Joint Replacement Registry (AJRR)

Achieving and Maintaining the Advanced Total Hip and Knee (THKR) Certification from The Joint Commission

Registry Participation Toolkit

Version 1.0; released May 2023

ABOUT THIS TOOLKIT

This toolkit provides details related to your registry participation for obtaining and maintaining your THKR certification. This guide includes information related to measure definitions, details to aid in the data submission process to appropriately calculate measures in the registry to inform quality improvement at your site, and frequently asked questions to support ongoing data submission to the registry.

Advanced Total Hip and Knee Replacement Certification

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Section 1: Introduction to the Quality Measures & Supporting Data Elements

The AAOS, in collaboration with The Joint Commission (TJC), incorporates its clinical expertise into standards development and performance measurement requirements for the Total Hip and Knee Replacement (THKR) Certification. TJC established the voluntary advanced certification in 2016 for accredited hospitals, critical access hospitals, and ambulatory surgery centers (ASCs) seeking to elevate the quality, consistency, and safety of their services and patient care. The American Joint Replacement Registry serves as the sole pathway for meeting the registry requirement to obtain and maintain the certification.

1.1 Performance Measures

The table below provides a description for each of the five measures defined by TJC to measure quality outcomes along with a mapping of registry data elements to the measure numerator and denominator and exclusions. Section 1.2 below will further detail the data elements required for submission to populate these measures.

THKS Performance Measure	Description	Required Data Elements for Measure Calculation
THKR-1 Regional Anesthesia	Patients undergoing a primary total hip or knee replacement with regional anesthesia attempted or performed including spinal and epidural blocks and peripheral nerve blocks	**Numerator:** TJC_AnesthesiaType = 2,3,4,5, TJC_Rgnl_Ansth_Exemption = 1, 3, 4 **Denominator:** PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT) **Exclusions:** LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, and malignant neoplasms based off coding (fracture **is NOT** an exclusion for THKR-1)

THKS Performance Measure	Description	Required Data Elements for Measure Calculation
THKR-2 Postoperative Ambulation on the Day of Surgery	Patients undergoing a primary total hip or knee replacement who ambulated postoperatively the day of surgery or ambulated in the PACU or within 4 hours of discharge from the PACU	**Numerator:** ProcedureDate, TJC_Ambulation = 1 **Denominator:** PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT) **Exclusions:** TJC_Ambulation = 3, Discharge Disposition Code (03 – D/C to SNV, 07 – Left AMA), PatDeathDate on or before DSCHRGDT, LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding
THKR-3 Discharged to Home	Patients undergoing a primary total hip or knee replacement discharged to home following a total hip or knee replacement	**Numerator:** TJC_DSCHDISPCODE = 01 or 06 **Denominator**: PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT) **Exclusions:** TJC_Admit_Source = 2, TJC_ Discharge_Exclusion = 1, Disposition Code (03 – D/C to SNV, 07 – Left AMA), PatDeathDate on or before DSCHRGDT, LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding
THKR-4 Preoperative Functional/ Health Status Assessment	Patients undergoing a primary total hip or knee replacement who completed the general health (VR-12 or PROMIS-Global) and joint specific (HOOS Jr./subscales or KOOS Jr./subscales) functional status assessments:	**Numerator:** ProcedureDate, PROMS_Date , VR-12 or PROMIS-10 and HOOS JR/HOOS or KOOS JR/KOOS, ALL ≤ 90 days before procedure date **Denominator:** PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT)

THKS Performance Measure	Description	Required Data Elements for Measure Calculation
	Within 90 days prior to surgery and 90 days postoperatively.	**Exclusions:** LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding
THKR-5 Postoperative Functional/ Health Status Assessment	Patients undergoing a primary total hip or knee who completed a general health (VR-12 or PROMIS-Global) and joint specific (HOOS Jr./subscales or KOOS Jr./subscales) functional status within 3 months (30-150 days) post-op.	**Numerator:** ProcedureDate, PROMS_Date , VR-12 or PROMIS-10 and HOOS JR/HOOS or KOOS JR/KOOS, ALL > 30 days and < 150 days post-op (3-month time point) **Denominator:** PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT) **Exclusions:** PatDeathDate on or before DSCHRGDT, LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding

1.2 Required Data Elements for Submission

The registry requires key data elements for successful submission to the registry as defined by the AJRR data specification. For sites that are advanced certified or pursuing advanced certification, there are specific fields that must be populated to calculate the THKR measures. The AJRR procedure file fields defined in the data specification identify the included patient population (denominator), cases meeting the metric (numerator), and exclusions to remove unqualified cases from the measure calculations. The below table provides an excerpt from the AJRR data specifications including the data element name, brief description, and acceptable values for submission. These TJC-specific data elements are supported in the AJRR 2020 and 2021v1 Data Specification files.

Data Element Name & Brief Description	Acceptable Values for Submission
TJC_AnesthesiaType: Submitted techniques indicate successful attempt. Regional Anesthesia techniques are defined as options 2 (spinal block), 3 (epidural block), 4 (hip peripheral nerve block), or option 5 (knee peripheral nerve block).	1=General; 2=Spinal; 3=Epidural; 4=Nerve Block: Lumbar Plexus/Psoas/etc. (hip); 5= Femoral/Sciatic/Adductor/etc. (knee); 6= Not reported or NR; 7= Monitored Anesthesia Care (MAC); PLEASE NOTE: a comma separation may be used if there is more than one technique administered (e.g., "1, 4").
TJC_Rgnl_Ansth_Exemption: Required if a successful regional anesthesia technique is not reported in TJC_AnesthesiaType for an otherwise measure-eligible case. Indicate 6 (Not Reported) if a successful regional anesthesia technique is reported in TJC_AnesthesiaType.	1=Attempted and Failed; 2=Not attempted; 3=Contraindicated; 4=Not Indicated; 5=Unknown; 6=Not reported

Data Element Name & Brief Description	Acceptable Values for Submission
TJC_Ambulation: Did the patient ambulate on the day of surgery or within 4 hours of PACU discharge?	1=Yes; 2=No,; 3=No, other medical factors preventing ambulation; 4=Unknown; 5=Not reported
TJC_DSCHDISPCODE: The status code that identifies final place or setting to which the patient was discharged. The CMS Patient Discharge Status Code is a two-digit code that identifies where the patient is at the conclusion of a health care facility encounter (this could be a visit or an actual inpatient stay) or at the time end of a billing cycle (the 'through' date of a claim). Discharge codes 01 and 06 indicate a discharge to home as specified in this measure.	## or not reported or NR Any valid CMS Patient Discharge Status Code. Common codes used are: 01=Discharged to Home or Self Care (routine discharge); 02 =Discharged/Transferred to a Short-term General Hospital for Inpatient Care; 03=Discharged/Transferred to a Skilled Nursing Facility (SNF) with Medicare Certification in Anticipation of Skilled Care; 04=Discharged/Transferred to a Intermediate Care Facility (ICF); 05=Discharged/Transferred to a designated cancer center or children's hospital; 06=Discharged/Transferred to Home Care of Organized Home Health Service Organization; 07=Left against Medical Advice or Discontinued Care; 09=Admitted as an Inpatient to this Hospital (This code is for use only on Medicare outpatient claims, and it applies only to those Medicare outpatient services that begin greater than three days prior to an admission.); 20=Expired (This code is used only when the patient dies.); 90=Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital with a planned acute care hospital inpatient readmission
TJC_Discharge_Exclusion: Required if a discharge to home is not reported in TJC_DSCHDISPCODE for an otherwise measure-eligible case. If the patient was not discharged to home, a reason is necessary to exclude the patient. 1 (Yes) indicates that a documented medical/social reason exists for not discharging the patient to home.	1=Yes, 2=No, 3=Unknown, 4=Not reported or NR

Data Element Name & Brief Description	Acceptable Values for Submission
TJC_Admit_Source: Where the patient resided before admission to the facility. The admit source element is treated like an exemption, and only submitted when the discharge is not to home.	1=Home; 2=SNF and/or Other Healthcare Facilities; 3=Other; 4=Unknown; 5=Not reported or NR

Supporting information related to the data elements detailed above is noted below. There are additional criteria related to procedure data utilized to identify included and excluded cases and to calculate the measures in the dashboards:

- Inclusion Criteria Considerations (See also section 1.1 of this guide):
  - Procedure Codes (PX_1-PX_10)
    - The codes populated in these fields are used to identify only elective, primary total arthroplasty cases for the denominator for inclusion in the measure calculations.
- Exclusion Criteria Considerations (See also section 1.1 of this guide):
  - Diagnosis Codes (DX_1-DX_10)
    - The codes populated in these fields are used to identify exclusion diagnosis such as fractures, malignant neoplasms, etc.
  - Patient Death Date
  - Procedure Date
  - PROMs Date (date Survey was administered) & submitted surveys
  - Admit and Discharge Dates (Length of Stay)

For additional measure specification detail, please visit the Specifications Manual for Joint Commission National Quality Measures.

1.3 Locating THKR Specific Data Elements in the AJRR Data Specifications

When developing your data extract for registry submission, the data specifications will guide your technology team in extracting the data from your clinical systems. The visuals below provide an overview of how to locate these fields in the specification document. The data elements related to the index procedure are in

located within the "Procedure Layout" tab of the [AJRR Data Specifications](#). Within the data specification document, the data elements can be located by scrolling down to rows 200-205. Additional information related to the data element can be found in the [AJRR Data Dictionary](#) if further clarification is needed. Both the specification and dictionary files can be found under the "Tools" section in RegistryInsights®.

Upon opening the data specification document, select the 'Procedure Layout' tab as highlighted below to locate the TJC data elements:
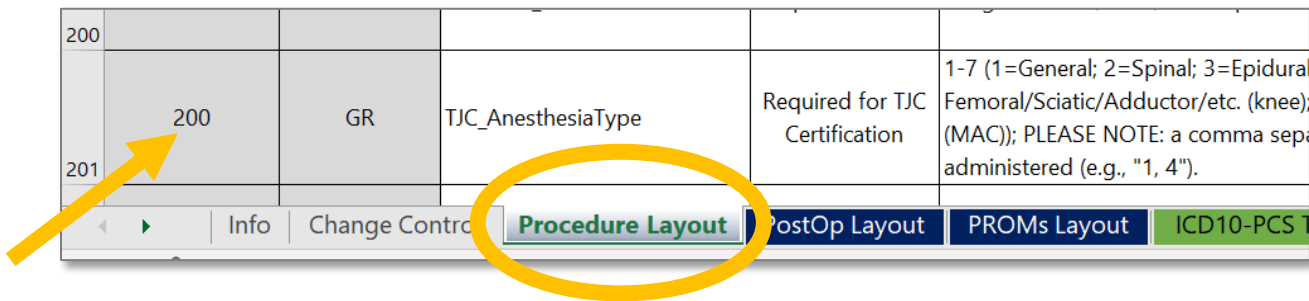
For calculation of THKR Measures 4 and 5, PROMs data submission is required. Select the "PROMs Layout" tab and find HOOS or KOOS and PROMIS-10 or VR-12 data elements and acceptable values. To meet the measures, procedures need to have **both** a functional assessment (HOOS/KOOS) **AND** a general health assessment (PROMIS-10 or VR-12).
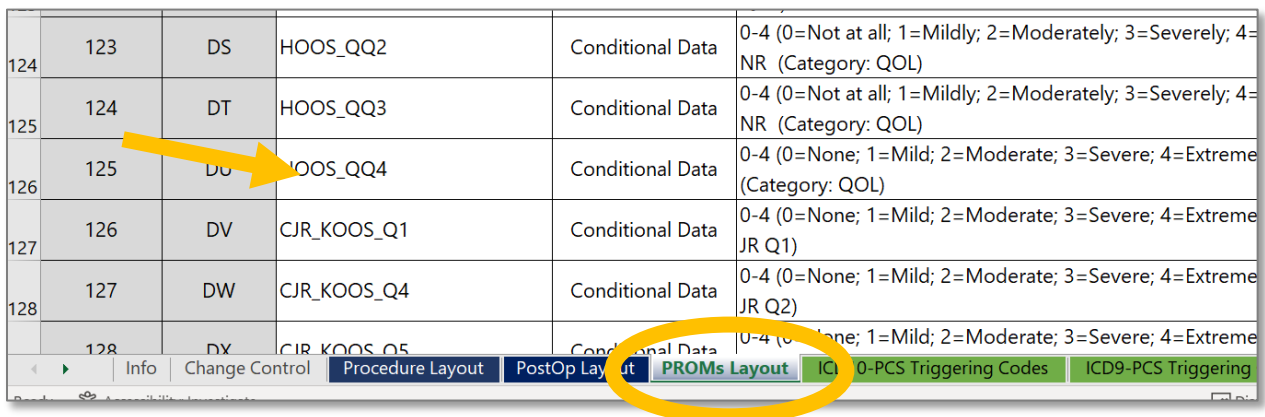
The "Procedure" and "PROMs" examples shown above are not a complete list of THKR Advanced Certification data elements. For a complete list of data elements, please refer to the tables above or refer to the Data Specifications.

1.4 Matching Procedures with Patient Reported Outcome Measure (PROMs)

PROMs surveys must be linked to an eligible TJC THKR case to be calculated in the performance measures and display in your performance measures dashboard.

The Registry Program uses patient identifiers to match PROMs to the index procedure. The patient identifiers are depicted in the graphic below. The identifiers in box A are preferred, but the identifiers in box B are utilized if A's criteria are not met. Similarly, if the criteria are not met for B, the identifiers in box C are utilized.

> **Glossary**
>
> **DOB:** Date of Birth
> **DXLat:** Laterality of the joint in the index procedure
> **FirstName:** The first name of the patient
> **Index Procedure:** The primary or anchor procedure
> **Joint:** The joint that the surgery is performed on
> **LastName:** The last name of the patient
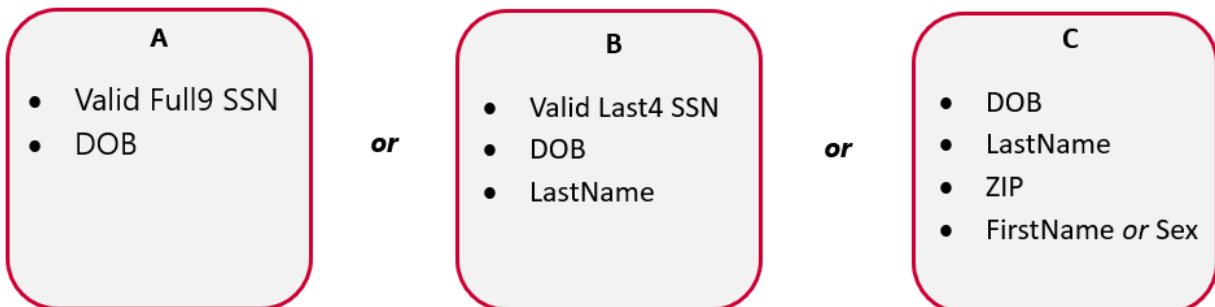> **Module:** The module that encompasses the submitted procedure
> **ProcedureDate:** The date of the index procedure
> **Sex:** The sex of the patient
> **SSN:** Social Security Number
> **ZIP:** ZIP code of the patient

Patient Matching

A
- Valid Full9 SSN
- DOB

or

B
- Valid Last4 SSN
- DOB
- LastName

or

C
- DOB
- LastName
- ZIP
- FirstName *or* Sex

PROMs Matching

Once the patient is matched, the next step is to link PROMs to the index procedure. The table below lists the fields that are used to match PROMs data. If the data in these fields are not consistent in the record submitted, the PROMs case will not be linked to the index procedure.

PROMs Matching	
AJRR	- Joint - DXLat - ProcedureDate

Section 2: Extracting Data from EHR Systems

This section is intended to help guide staff running a query and building a report to extract data from an EHR. For successful data submission to the registry, extraction from your clinical systems is necessary for consistent data submission which is an essential step in achieving and maintaining the THKR Advanced Certification. The data elements that are specific to THKR are extracted in the same manner as the standard data elements defined in the registry data specification. The steps below provide a general overview for developing data extracts from EMR systems.

2.1

Identify where data from the EHR is stored within your system. Sites that store data in-house may use database warehouses such as Clarity, Oracle, or MS SQL Server.

2.2

Review a sample query used in your EHR system, if available. AJRR also has a sample query for Clarity that sites may use as a reference point. The query will create tables using data that already exists within the EHR database. Identify query table names and adjust them to match your unique table names. For

example, the sample query includes a table name "HSP_ACCOUNT". However, your specific table containing the same values may be named "HOSP_ACCOUNT".

2.3

Launch the coding server used to access your database. Integrate the query and run the query.

2.4

Review the extracted file and compare it to the registry Data Specifications. Ensure that extracted data aligns with given data specifications and is saved in an acceptable format. RegistryInsights will analyze your document and only accept data if it is within the acceptable format and values outlined in the data specifications. If the data extraction does not align with data specifications, adjustments to the query may be needed.

2.5

Upload the completed file to RegistryInsights. The file can be uploaded manually to the RegistryInsights portal, or by the registry's SFTP service. The Registry Support team can provide guidance and information pertaining to the service during onboarding to the registry.

2.6

 An individual at your facility with technical experience may apply this query to run with a reporting tool. Once the report is created, steps 1-4 can be omitted. Simply run the report, save the file, and upload to RegistryInsights. Data must be submitted at least once per quarter to be considered an active participant in the Registry. However, most sites submit data once every month.

2.7

PROMs data capture is a requirement by TJC for the Advanced THKR Certification. The collection process may be done through an internal PROMs collection process (manual PROMs collection) submitted via the PROMs file submission to RegistryInsights, a third-party vendor, or the RegistryInsights PRO tool.

2.8

Epic and Cerner have AJRR report available for sites pending release version and modules they use for these systems. For sites that are resource constrained or have limited IT support, the Registry Authorized Vendor Program may be an option for supporting registry participation. You can access additional information here related to the program or reach out to RegistryEngagement@aaos.org for more information.

Section 3: Accessing & Viewing Your TJC Dashboards

Data that is submitted to the registry is populated in your site's dashboard in RegistryInsights®. Below are the steps to access the dashboards to view the TJC measures.

3.1 Logging in to RegistryInsights

Login at https://www.registryapps.net/. You will be brought to the RegistryInsights home page. The primary navigation ribbon is displayed in red. Hover over 'Dashboards & Reports' and select 'Institution Dashboards'

3.2 Navigating to the Performance Measures Dashboard

The Institution Dashboards contain important information regarding your institution's data and national comparisons. Scroll to the bottom of the page using the inner scroll bar at the right of the screen to locate the dashboard tabs. For data relating to the THKR Performance Measures, navigate to the bottom ribbon and select 'Your Performance Measures.'
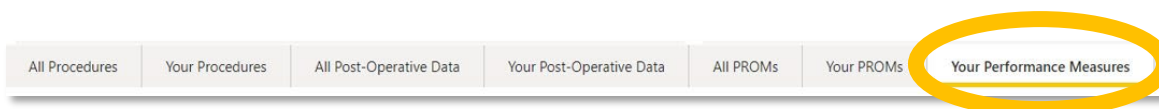
3.3 Viewing THKR Performance Measures

The 5 THKR measures are separately displayed for hip and knee cases. An encounter date filter at the top of the dashboard allows sites to set the procedure date range to view monthly data. Hovering over any column within a tile will display the measure numerator, denominator, and performance rate for the selected time frame.

The National benchmark across all the measure tiles is a historical benchmark provided by TJC. As THKR measure data submitted to the registry grows, we will seek to establish a national registry benchmark.

The Joint Commission Advanced Certification for Total Hip and Knee Replacement (THKR) Measures
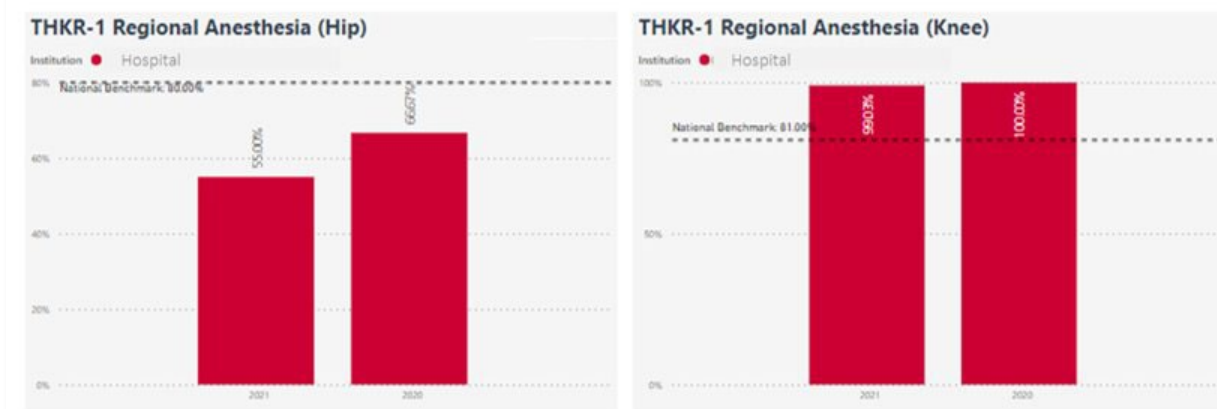
THKR-1 displays the performance rate for patients undergoing a total hip or total knee replacement with regional anesthesia attempted or performed. Regional anesthesia includes neuraxial anesthesia (spinal and epidural blocks) as well as peripheral nerve blocks. The measure is calculated from the specific TJC Anesthesia Type data element field responses and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2. The denominator is often higher than the other THKR measures as fracture cases are **not** excluded for this measure.

THKR-2 Postoperative Ambulation on the Day of Surgery (Hip)

THKR-2 Postoperative Ambulation on the Day of Surgery (Knee)
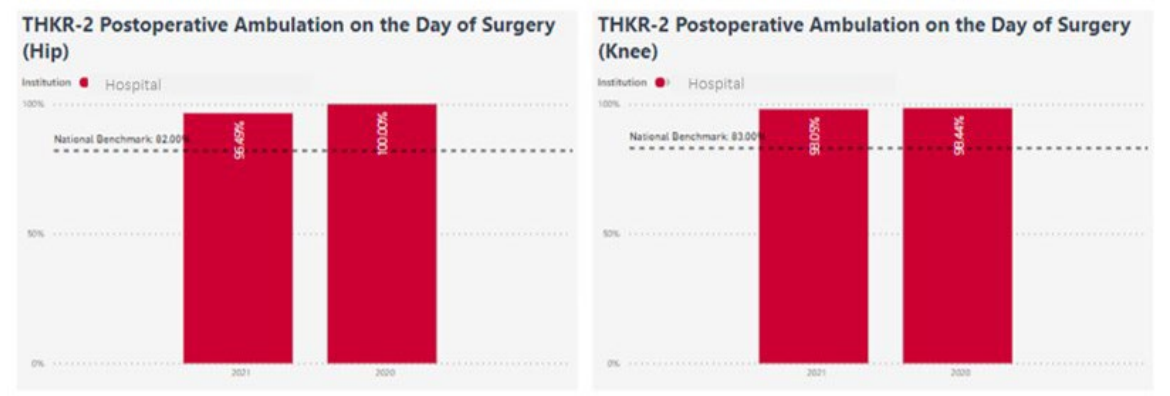
THKR-2 displays the performance rate for patients undergoing total hip or total knee replacement who ambulated postoperatively the day of surgery or ambulated in the PACU or within 4 hours of discharge from the PACU. The measure is calculated from the specific TJC Post-Op Ambulation data element and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2.

THKR-3 Discharged to Home (Hip)

THKR-3 Discharged to Home (Knee)
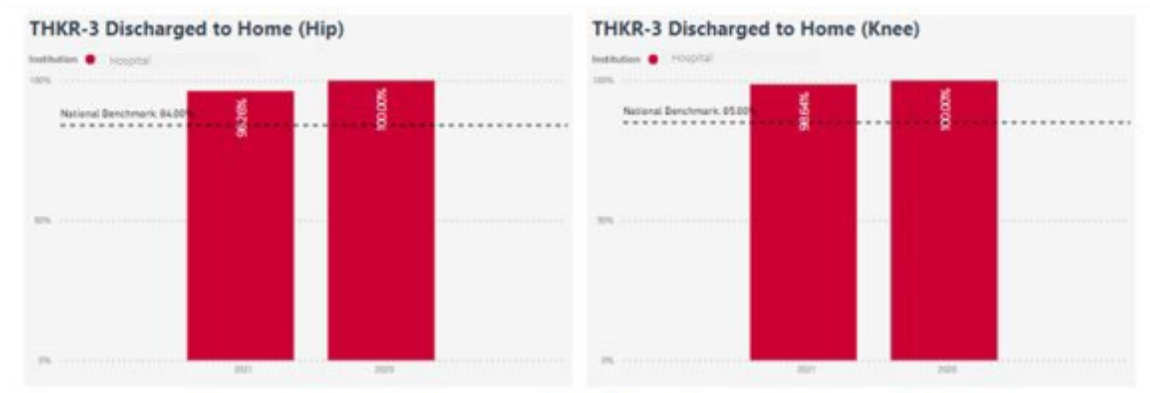
THKR-3 displays the performance rate for patients discharged to home following total hip or total knee replacement. The measure is calculated from the specific TJC Discharge data elements and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2.

THKR-4 Preoperative Functional/Health Status Assessment (Hip)

THKR-4 Preoperative Functional/Health Status Assessment (Knee)
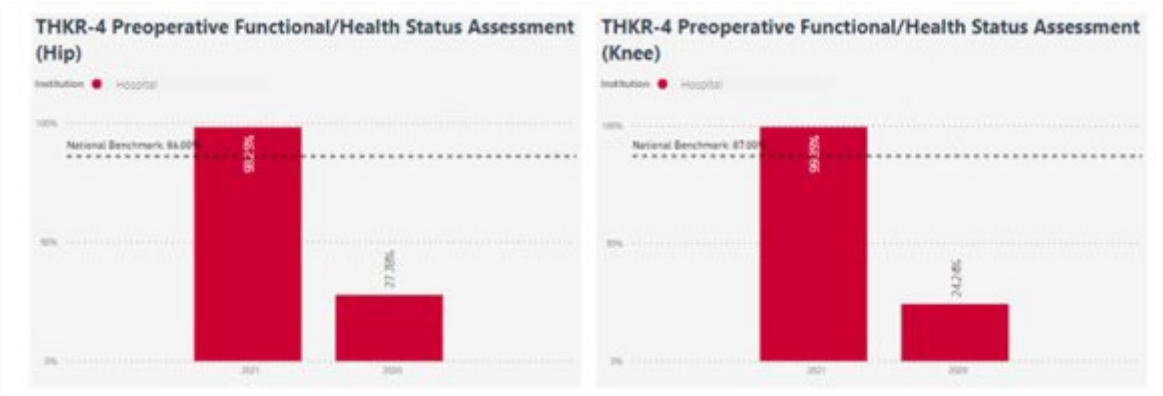
THKR-4 displays the performance rate for patients who completed the general health (PROMIS-10 or VR-12) ***and*** joint specific functional status assessments (HOOS or KOOS) within 90 days prior to surgery. The measure is calculated from the submission of these surveys linked to the procedure date, data of survey completion, and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2.

(9) THKR-5 Postoperative Functional/Health Status Assessment (Hip)

(10) THKR-5 Postoperative Functional/Health Status Assessment (Knee)
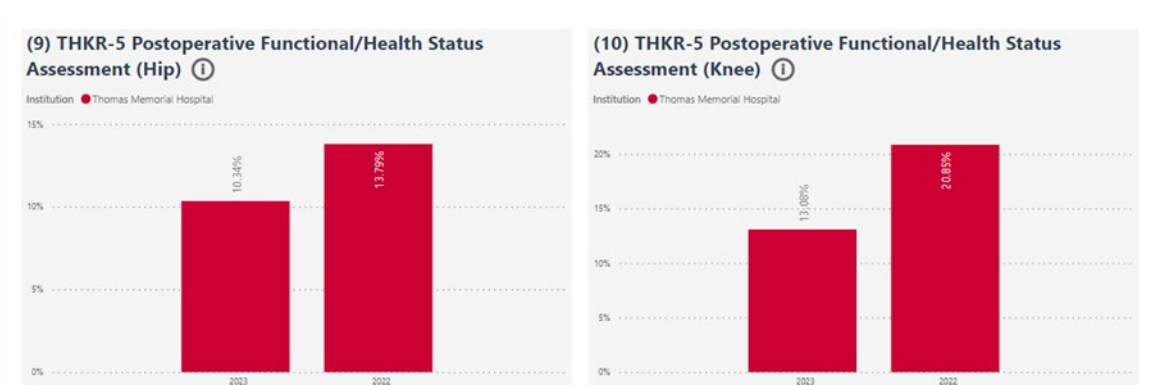
THKR-5 displays the performance rate for patients who completed the general health (PROMIS-10 or VR-12) ***and*** joint specific functional status assessments (HOOS or KOOS) within 90 days after surgery (30–150-day interval for capture). The measure is calculated from the submission of these surveys linked to the procedure date, data of survey completion, and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2.

3.4 TJC Data Detail Report

Access the TJC Data Detail Report on the Performance Measures tab under the THKR measure charts.

(9) THKR-5 Postoperative Functional/Health Status Assessment (Hip) ⓘ

Institution ● Thomas Memorial Hospital

(10) THKR-5 Postoperative Functional/Health Status Assessment (Knee) ⓘ

Institution ● Thomas Memorial Hospital

[TJC Data Detail Report](#)

Modified 109 Measure

	All Post-Operative Data	Your Post-Operative Da		PROM:	Your Performance Measures
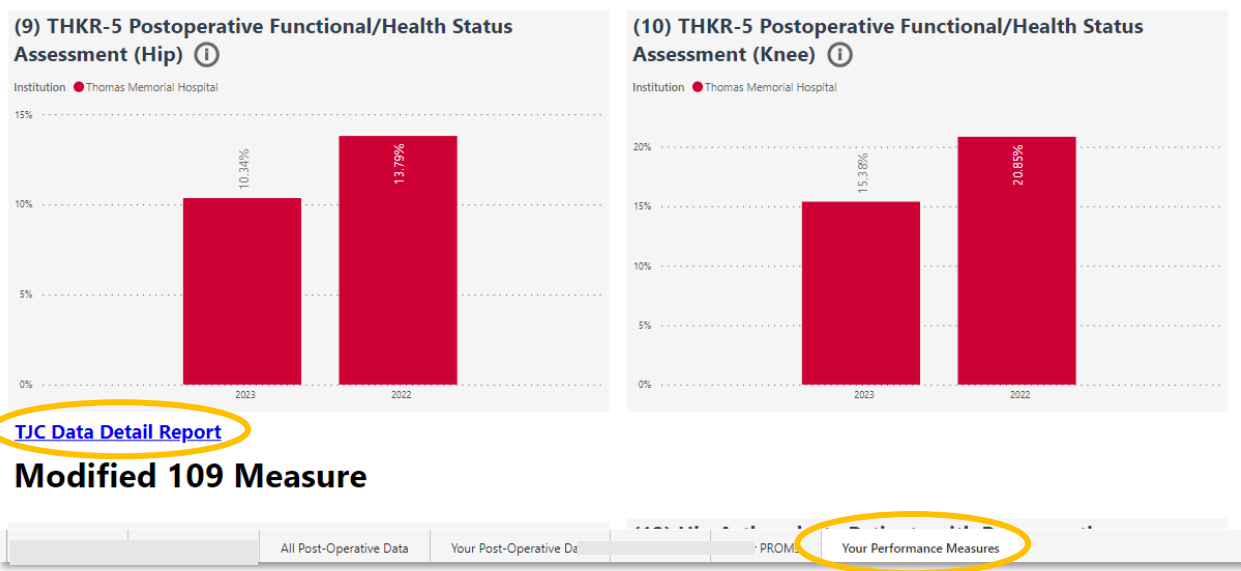
Use the measure filters to identify cases meeting the metric, indicated by "1" or those not meeting the metric (measure fallout), indicated by "0." This report can also be filtered by care setting, joint, procedure month and year, or by clicking any of the red report headings to sort on that column's values.

TJC View

Setting of Care	THKR1	THKR2	THKR3	THKR4	THKR5	PromisPreOp Completed	PromisPostOp Co	P Completed	VR12PostOP Completed	HoosKoosPreOp Completed	Hoo
Inpatient	0	0	0	0	0						
Inpatient	0	0	1	0	0						
Outpatient	0	1	1	0	0					0	
Outpatient	1	0	1	0	0						
Outpatient	1	1	1	0	0			0		0	
Outpatient	0	0	1	0	0			0		0	
Outpatient	0	1	1	0	0			0		0	
Inpatient	0	0	1	0	0						
Outpatient	0	1	1	0	0			0		0	
Outpatient	0	1	0	0	0			0		0	
Outpatient	1	1	1	0	0			0		0	
Outpatient	0	1	1	0	0			0		0	
Outpatient	0	1	1	0	0			0		0	
Outpatient	0	1	1	0	0			0		0	
Outpatient	0	1	1	0	0			0		0	
Outpatient	1	1	1	0	0			0		0	
Outpatient	0	1	1	0	0						
Outpatient	0	1	1	0	0						
Inpatient	0	0	0	0	0						
Outpatient	0	1	1	0	0			0		0	
Outpatient	1	1	1	0	0			0		0	
Outpatient	1	1	1	0	0			0		0	

All Procedures	Your Procedures	All Post-Operative Data	Your Post-Operative Data	All PROMs	Your PROMs	Your Performance Measures

Gain additional insight on measure fallouts and identify excluded cases removed from the denominator by reviewing submitted TJC data fields and exclusion criteria met. The legend below provides the data element responses indicated a measure exclusion. Additional data element and measure calculation details can be found in the previous tables in this Toolkit.

	TJC_AnesthesiaType	TJC_Rgnl_Ansth_Exemption	TJC_Ambulation	TJC_DSCHDISPCODE	TJC_Admit_Source	TJC_Discharge_Exclusion	EncounterMortality	Revision-Removal-Partial
	1	6	5	02		4	0	0
	6	6	5	01		4	0	1
	6	6	1	01		4	0	0
	1,5	6	5	01		4	0	0
	1,5	6	1	01		4	0	0
	6	6	5	01		4	0	0
	6	6	1	01		4	0	0
	6	6	5	06		4	0	1
	6	6	1	01		4	0	0
	6	6	1	03		4	0	0
	1,5	6	1	01		4	0	0
	6	6	1	01		4	0	0
	6	6	1	01		4	0	0
	6	6	1	01		4	0	0
	1	6	1	01		4	0	0
	1,4	6	1	01		4	0	0
	6	6	1	01		4	0	1
	6	6	1	01		4	0	1
	6	6	5	20		4	1	0
	6	6	1	01		4	0	0
	1,5	6	1	01		4	0	0
	1,5	6	1	01		4	0	0

All Procedures · Your Procedures · All Post-Operative Data · Your Post-Operative Data · All PROMs · Your PROMs · Your Performance Measures

TJC Data Element Denominator Exclusion Legend		
Measure	**AJRR Data Element**	**Submitted Value**
THKR-2	**TJC_Ambulation**	**3** – site documented other medical factors preventing ambulation
THKR-2 & THKR-3	**TJC_DSCHDISPCODE**	**03 –** Discharged to SNF or **07 –** Left AMA
THKR-3	**TJC_Admit_Source**	**2** – Admitted from SNF and/or other healthcare facilities
THKR-3	**TJC_Discharge_Exclusion**	**1** – Yes, there is a documented medical or social reason patient was not discharged to home
Additional denominator exclusions are identified via ICD-10 diagnosis coding (fractures*, malignant neoplasms), CPT or ICD-10 procedure coding (hemis, revisions, complications) Length of stay, and Patient death date where applicable. These exclusions are indicated with a "1" in the last 4 columns of the report. **Fracture is not an exclusion for THKR-1*		

This report is currently available to view on the dashboard. An exportable version will be available in a future update.

Section 4: Frequently Asked Questions

How do sites participate?

TJC Advanced THKR Certification requires participation in the American Joint Replacement Registry (AJRR) for performance measures and quality improvement purposes. Sites must be contracted with AJRR and submitting data to the registry on at least a quarterly basis.

How do I get started with the AJRR if my site is not already enrolled?

To find out if your site is already participating or to start the process of joining AJRR, reach out to the AAOS Registry Engagement team at RegistryEngagement@aaos.org, (847) 292-0530, or visit www.aaos.org/ajrr to find out more.

What data do I need for my site survey?

For initial certification, at least four months of data for each performance measure must be available at the time of the on-site review. For re-certification, 12-24 months of program data must be available at the time of the on-site review. At least the last twelve months of program data should be available at the time of the Intra-cycle monitoring phone call with the reviewer.

For more information and resources on the site survey process, visit the TJC Advanced THKR Certification website.

What THKR measures does AJRR support?

There are five performance measures supported by the AJRR for total hip and knee replacements:

- Regional Anesthesia
- Postoperative Ambulation on the Day of Surgery
- Discharged to Home
- Preoperative Functional/Health Status Assessment
- Postoperative Functional/Health Status Assessment

How can sites view their data?

AJRR has dashboards on the RegistryInsights® platform that display a site's performance measure data for the TJC Advanced THKR Certification measures. To

view calculated measures in the RegistryInsights dashboard, sites need to submit the TJC elements reviewed in sections 1.1 and 1.2 of the Registry Participant Toolkit and found in our data specifications.

How are the performance measures calculated?

The dashboard analytics filter out TJC exclusion and exemption criteria for each case based on submitted data, displaying only those applicable to the measure. Built-in functionalities allow for quick highlighting of graph bars to show a detailed legend including the numerator and denominator counts for each hip and knee metric. Additional details on the measure calculations can be reviewed in the TJC Registry Participant Quick Reference Guide or in Sections 1.1 and 1.2 of the Registry Participant Toolkit.

Are the measures separated by inpatient and outpatient status?

The current dashboard visuals are separated out by joint for each measure, displaying aggregate numerator and denominator data across all case types. Additional case details, including the care setting, can be found in the TJC Data Detail Report link under the THKR charts. See section 3.3 of the THKR Registry Participant Toolkit for additional information on accessing and using this report. A future update will include an Inpatient/Outpatient filter across all performance measures.

Do you follow the [TJC Measure Specification](#)?

Yes, our inclusion and exclusion criteria built into the measure calculations follows the TJC specification for all 5 measures. The only exception is the PROMs data, where AJRR has an additional requirement for the full PROMs survey so sites may track improvement and benchmarking in the RegistryInsights dashboard.

How do I know which cases are meeting a performance measure?

There is a TJC Data Detail Report available on the performance measures tab under the THKR measure charts. This report provides detail on whether individual cases met the metric and detail on the exclusion criteria data that would remove a case from the denominator. This report can also be filtered by care setting (inpatient/outpatient), procedure data, joint, and measure. For more information, see section 3.3 of the Registry Participant Toolkit.

Do I need to submit all the TJC fields in the data specifications?

Yes, to accurately calculate the measures, all fields need to be submitted. Some of the exclusion criteria will not apply to all cases (ex: the TJC_Rgnl_Asth_Exemption will only require a response if regional anesthesia was not performed or attempted). In the case where a response is not applicable, the field can be populated as Not Reported or NR.

Why does my denominator vary across the THKR measures?

Some exclusion criteria apply across all 5 measures, such as revision procedures, however, each measure also has its own exclusions that could create varying denominator values. For example, a patient may have a medical reason documented for not ambulating the day of surgery but still had regional anesthesia and was discharged to home. This would remove the case from the denominator of THKR-2 but would remain in THKR-1 and 3.

Why is my THKR-1 (Regional Anesthesia) measure denominator higher than the other metrics?

 THKR-1 is the only measure that does not exclude fracture cases from the denominator, often creating a higher eligible case count for this measure. Cases indicating that regional anesthesia was attempted and failed or medically contraindicated are also treated as an exemption, not an exclusion, per the TJC Measure Specification, meaning the case remains in the numerator and is not removed from the denominator. See sections 1.1 and 1.2 of the Registry Participant Toolkit or the Registry Quick Reference Guide for additional detail on the data element responses and measure calculation for THKR-1.

How long will it take for data to populate in the dashboards?

We recommend sites allow 2-3 days for data to refresh in the dashboards. If you are still not seeing your submitted data populate, please reach out to registrysupport@aaos.org or call 1-800-999-2939.

What do I do if my THKR measure tiles are blank or are not displaying the performance rate expected based on cases submitted?

If your data is missing or lower than expected in the dashboards, you can take the below steps to review your data submission. If after reviewing you are still not

seeing expected data in your dashboard, please reach out to
registrysupport@aaos.org or call 1-800-999-2939

1. File Submission Verification
   - ✓ Recent procedure and/or PROMs data files are visible in your RegistryInsights home page file submission history
   - ✓ Files are visible and successfully processed
     - ➢ Move to #2 - Data Element Review
   - ✓ File has multiple rejections
     - ➢ Click the blue "view" link to drill down to the case rejection details and identify failed fields
     - ➢ Correct these fields and resubmit rejected cases
   - ✓ A recent file submitted is not visible in RegistryInsights or you have questions about how to correct your case rejections
     - ➢ Reach out to registrysupport@aaos.org or call 1-800-999-2939

2. Data Element Review*
   THKR-1
   - ✓ Values are populated for TJC_AnesthesiaType and TJC_Rgnl_Ansth_Exemption data elements in the procedure file
   THKR-2
   - ✓ Values are populated for TJC_Ambulation data element in the procedure file
   THKR-3
   - ✓ Values are populated for TJC_DSCHDISPCODE, TJC_Discharge_Exclusion, and TJC_Admit_Source in the procedure file
   THKR-4
   - ✓ A pre-op general health assessment (PROMIS-10 or VR-12) *AND* a joint-specific functional status assessment (HOOS or KOOS) completed within 90 days before surgery are submitted on the PROMs file or via the RegistryInsights PRO Portal
   - ✓ PROMsTime data element is populated with pre-operative
   - ✓ Procedure for the pre-op PROMs has also been submitted
   - ✓ Patient matching data fields outlined in section 1.4 of the Registry Participant Toolkit are complete
   THKR-5

- ✓ A post-op general health assessment (PROMIS-10 or VR-12) *AND* a joint-specific functional status assessment (HOOS or KOOS) completed 30-150 days after surgery are submitted on the PROMs file or via the RegistryInsights PRO Portal
- ✓ PROMsTime is populated with 3-month
- ✓ Procedure for the post-op PROMs has also been submitted
- ✓ Patient matching data fields outlined in section 1.4 of the Registry Participant Toolkit are complete

Use the table in section 1.1 to identify data element values used to calculate numerator cases

3. Additional Dashboard Considerations
   - ✓ Performance measure tiles do not populate if the rate is 0%, so there needs to be at least 1 case eligible for the numerator to see data in any of the THKR measure visuals
   - ✓ PROMs measures, THKR-4 and 5, will not populate unless both general health and functional assessments have been submitted and are linked to the applicable submitted procedure