Informed, Patient Centered Hip / Knee Replacement Surgery
Partnership for Quality Measurement (PQM) #2958
User Guide

I. Purpose:
To measure the extent to which patients are informed and receive treatments that match their goals and preferences.

II. Informed, Patient Centered Hip and Knee Replacement Surgery (PQM Measure #2958):
In 2016, NQF endorsed a measure that is derived from patient responses to the Hip or Knee Decision Quality Instruments. In 2022, NQF recertified the measure and later transitioned oversight to the Partnership for Quality Measurement. This is a brief summary of information included in the measure (https://p4qm.org/measures?combine=2958).

The target population is adult patients who had a primary hip or knee replacement surgery for treatment of hip or knee osteoarthritis within the past 6 months.

- **Numerator Statement:** The numerator is the number of respondents who have an adequate knowledge score (60% or greater) and a clear preference for surgery.
- **Denominator Statement:** The denominator includes the number of respondents from the target population of adults who have undergone primary knee or hip replacement surgery for treatment of knee or hip osteoarthritis.
- **Denominator Exclusions:** Respondents who are missing 3 or more knowledge items do not get a total knowledge score and are excluded. Similarly, respondents who do not indicate a preferred treatment are excluded. No other exclusions as long as the respondent has the procedure for the designated condition.

III. Survey Versions. The following surveys are used to generate the IPC measure:
- IPC/PQM #2958 Hip Osteoarthritis v2.0, ©2010 [Updated 2016, Last reviewed 2024].
- IPC/PQM #2958 Knee Osteoarthritis v2.0, ©2010 [Last reviewed 2024].
- Hoja de Trabajo Sobre La Calidad de Decision en Tratamientos de Osteoartritis de Cadera v.2.0 ©2012 [Last Reviewed 2024] [Spanish version of Hip].
- Hoja de Trabajo Sobre La Calidad de Decision en Tratamientos de Osteoartritis de Rodilla v.2.0 ©2012 [Last Reviewed 2024] [Spanish version of Knee].

IV. Sampling: Patients of a particular surgeon or at a particular clinical site (which could be a group of providers or a hospital or other surgical site) who had a primary knee or hip replacement surgery are identified from medical records, claims or in some other way. Sampling should allow time for immediate recovery, while attempting to survey shortly

after the procedure, for example, by sampling eligible patients 1- 6 months after the procedure. Patients can be sampled sequentially, or a pool of such patients who had the procedure in a particular time period (e.g. in the last 3 months) can be created and sampled at a rate that produces the desired number of potential respondents. A list of ICD and CPT codes to identify patients with hip and knee osteoarthritis who are undergoing a primary joint replacement are available from the measure developer (decisions@partners.org).

The measure can also be calculated from a population-based sample, such as a sample of a population in a geographic area. Eligible respondents could be identified from claims (such as Medicare claims files) or based on patient self- reports of having had the procedures within some time frame.

A sample size of about 150 would be needed to detect differences in proportions of 15% for the measure (e.g. from 25% to 40%) with 80% power. This size difference is what we have observed between sites that do and do not make an effort to do shared decision making.

Proxy respondents are not permitted. The patients who receive the procedure should answer the survey questions.

V. Scoring:

The numerator requires respondents to be "informed" (knowledge score = 60% or higher) and clear preference for surgery (preference item = surgery).

1. Knowledge Score: For each fact, a correct response receives one point (see Table 1). Missing responses receive 0 points. A total score is calculated for all patients who complete at least half of the items. Total scores are scaled from 0-100%. Respondents who score 60% or higher meet the "informed" component of the measure.

Table 1: Knowledge items and correct responses

Question	Correct response
#1. Which treatment is most likely to provide relief from hip/knee pain caused by osteoarthritis?	Surgery
# 2. After hip/knee replacement surgery, about how many months does it take most people to get back to doing their usual activities?	2 to 6 months
# 3. If 100 people have hip/knee replacement surgery, about how many will need to have the same hip/knee replaced again in less than 20 [hip] 15[knee]/years?	Less than half
# 4. If 100 people have hip/knee replacement surgery, about how many will have less hip/knee pain after the surgery?	90 (hip); 80 (knee)

# 5. Serious complications can happen after hip/knee replacement surgery including life threatening blood clots, infections, heart attacks, and even death. If 100 people have hip/knee replacement surgery, about how many will have a serious complication within 3 months after surgery?	4

Note: "I don't know" ("no estoy seguro" in Spanish version) can be added as a response to knowledge items. An "I don't know response" receives 0 points (see feasibility section for considerations with including this response option).

2. Concordance: We use patients' preferred treatment, assessed with a single item, "Which treatment did you want to do to treat your knee [hip] osteoarthritis?" with possible responses (Non surgical treatments, surgery, I am not sure). For the PQM measure, only patients who mark a preference for surgery are included in numerator.

VI. Psychometric Properties:

Please see the PQM documentation for more details on the evidence regarding this measure: https://p4qm.org/measures?combine=2958. The user guide for the Decision Quality Instrument also has more details on the psychometrics for the underlying surveys used to calculate the measure.

VII. Appropriate Use

The DQIs are protected by copyright. They are available to use at no cost, provided that you:

- Cite the reference in any questionnaires or publications
- Do not charge for or profit from them
- Do not alter them except for customization for a specific condition and reformatting

Suggested Citations for the DQIs:

Sepucha KR. Knee [or Hip] Osteoarthritis Decision Quality Instrument v.2.0. ©Massachusetts General Hospital, 2010 [Last reviewed 2024].

Sepucha KR. Decision Quality Worksheet: Treatments for Knee [or Hip] Osteoarthritis. v.2.0. ©Massachusetts General Hospital, 2010 [Updated 2016, Last reviewed 2024]. Downloaded from: https://mghdecisionsciences.org/tools-training/decision-worksheets/.

Suggested Citation of the User Guide:

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VIII. Selected References

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3. Sepucha K, Fowler F, Mulley A. Policy Support For Patient-Centered Care: The Need For Measurable Improvements In Decision Quality. *Health Affairs*. 2004 Oct 7 [web publication].

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But Not Hip Osteoarthritis: The DECIDE-OA Randomized Study. J Bone Joint Surg Am. 2022 Jan 5;104(1):62-69. doi: 10.2106/JBJS.21.00064.

IX. Questions or comments? Please contact us at decisions@partners.org or visit our website at https://www.mghdecisionsciences.org