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From Surgical Success to Health Gain: Expanding National Knee Arthroplasty Quality Indicators with EQ-5D in Türkiye

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OBJECTIVES

Knee arthroplasty is one of the most frequently performed orthopedic procedures and represents a priority area within Türkiye's national clinical quality monitoring program. This study aims to critically examine nationally defined knee arthroplasty quality indicators and assess the potential contribution of EQ-5D integration to strengthen patient-centered and value-based evaluation.

METHODS

A structured document and policy analysis was conducted using the 2021 Clinical Quality Measurement and Evaluation Guideline and related regulatory documents. Nationally defined knee arthroplasty indicators were identified and categorized into clinical outcomes, utilization measures, and patient risk characteristics. The indicator set was then conceptually compared with international arthroplasty registries and quality frameworks that routinely include patient-reported outcome measures (PROMs), particularly EQ-5D.

RESULTS

National Knee Arthroplasty Quality Indicators

- Early readmission due to patellar dislocation within 2 months
- Reoperation rates within 2 and 12 months
- Average length of hospital stay
- Age distribution categories
- Proportion of patients with BMI >40

Key Findings

Current Indicator Scope
The national framework captures short-term complications, revision surgery, hospital performance, and selected risk factors.

Quality Dimension Gaps
Key dimensions such as pain relief, functional recovery, mobility improvement, and overall HRQoL are not directly measured.

Value of EQ-5D Integration
EQ-5D enables measurement of pre- and post-operative health status, quantification of health gain, and generation of utility values for cost-utility analyses.

RESULTS

The national framework includes early readmission due to patellar dislocation within 2 months, reoperation rates within 2 and 12 months, average length of hospital stay, age distribution categories, and the proportion of patients with BMI >40. These indicators capture short-term complications, revision surgery, hospital performance, and selected risk factors. However, key quality dimensions such as pain relief, functional recovery, mobility improvement, and overall HRQoL are not directly measured. International arthroplasty registries increasingly use PROMs to assess patient-perceived benefit. EQ-5D enables measurement of pre- and post-operative health status, quantification of health gain, and generation of utility values for cost-utility analyses. Türkiye's centralized digital health infrastructure, including e-Nabız and the Decision Support System, provides a feasible platform for routine EQ-5D collection at baseline and follow-up.

Key Implications

- Expands evaluation beyond surgical safety
- Strengthens patient-centered assessment
- Supports institutional benchmarking
- Aligns with international value-based standards

CONCLUSIONS

Incorporating EQ-5D into Türkiye's knee arthroplasty quality monitoring framework would expand evaluation beyond procedural safety toward measurable health gain, strengthen patient-centered assessment, support institutional benchmarking, and align national practice with international value-based healthcare standards.

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