

Patient Reported Outcomes in Joint Registries: Defining the Optimal Collection Window

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Introduction: Patient-reported outcomes (PROs) are increasingly being used in joint registries and healthcare agencies to assess the quality of care. While there have been abundant publications describing their use, few have discussed the optimal timing of PROs administration postoperatively. The purpose of this study was to determine the optimal window for PROs collection in the postoperative period.

Methods: Our prospectively collected institutional total joint registry was queried for patients who underwent primary elective TJA. 866 procedures (416 TKA, 450 THA) were available for analysis. The primary outcomes were the net changes in Short Form-12 mental component summary (SF-12 MCS), Short Form-12 physical component summary (SF-12 PCS), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), UCLA activity level rating, Oxford Hip Score (OHS), and Knee Society clinical rating system (KSCRS) at 6, 12, and 24 months postoperatively. Secondary outcomes were data acquisition costs and follow-up attrition rates.

Results: A significant plateau in PRO improvement was noted by 6 months postoperatively. For TKA, the percentage of overall improvement achieved by 6 months was 88.7%, 84.5%, 100%, and 90.5% for the WOMAC, SF-12 PCS, UCLA, and KSCRS respectively. For THA, these values were 92.7%, 83.5%, 88.0%, and 89.8% respectively for the same measures. There were marginal improvements from 6 to 12 months and no improvement from 12 to 24 months. Follow-up attrition rates at 6, 12, and 24 months were 85%, 69%, 40% respectively. Our institutional costs for collecting a complete dataset per patient are \$159, \$333, and \$1,256 for 6, 12, and 24 months respectively.

Conclusions: This study provides evidence that the vast majority of improvement in PROs following TJA occurs within the first six months postoperatively. Considering the high cost of data acquisition and attrition rates, collection of PROs beyond 6 months may not be necessary or cost-effective.