

Paper #41

Minimal Important Change Or Difference For The Oxford Hip And Knee Scores

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Summary:

This paper, for the first time, reports validated minimal important difference estimates for the widely used and international PROMs, the Oxford Hip and Knee Scores.

Abstract:

Background: The Oxford Hip Score (OHS) and the Oxford Knee Score (OKS) are widely used international instruments in analysing outcomes of joint surgery and decision making in research, audit and clinical practice. In this paper we address the increasingly important issue of interpretation of meaningful minimal differences/changes in these scores. The objective of our study was to: (i) present a range of estimates of meaningful or minimal important changes/differences for the OHS and OKS based on different approaches, and (ii) identify the estimates that are most consistent and useful for application in specific contexts.

Methods: Secondary data analysis of 137,109 patients who underwent hip replacement and 156,788 patients who underwent knee replacement. Patients completed OHS or OKS pre- and six months post-operatively together with a global transition item rating perceived change.

Findings: Anchor based methods produced values for the Minimal Important Difference (MID) of 5 points for the OKS and OHS and Minimal Important Change (MIC) of ~ 9 points for the OKS and ~ 11 points for the OHS. Distribution based methods showed that the Minimal Detectable Change (MDC90) for the OKS and OHS respectively were 4 and 5 points.

Interpretation: A variety of estimates of minimal important change/difference can be generated for patients undergoing joint surgery and not all of them are clinically meaningful. We would recommend, based on current evidence, that the MID of 5 points on the OKS and OHS is used to indicate meaningful difference between patients (e.g. in clinical trials) and the MIC of 9 points on the OKS and 11 on the OHS to indicate meaningful change from baseline in a single group design. The MDC90 of between 4 and 5 points can be used to indicate change beyond measurement error on individual patients.

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