

Paper #149

## Determining the Minimal Clinically Important Difference of Oxford, Constant, and UCLA Shoulder Score for Arthroscopic Rotator Cuff Repair.

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### Summary:

CMS, UCLA, and OSS are valid tools for calculation of MCID after arthroscopic RC repair and the various MCID calculated could be used as a benchmark for interpretation of these scores and serve as a tool to power future comparative studies.

### Abstract:

#### Purpose

To determine the various Minimal Clinically Important Difference (MCID) for Constant-Murley score (CMS), University of California Los Angeles (UCLA) shoulder score, and Oxford Shoulder Scores (OSS) after arthroscopic rotator cuff (RC) repairs.

#### Methods

Between 2010 and 2015, patients who underwent unilateral arthroscopic RC repair by a single surgeon were prospectively followed up and assessed pre-operatively, and at 12- and 24-month post-operatively for CMS, UCLA, OSS, satisfaction, and expectation fulfilment. Anchor-based approach with 2 external indicators (satisfaction and expectation fulfilment) were used. MCID for CMS, UCLA and OSS at 12-month and 24-month was determined using simple linear regression according to patient satisfaction and expectation fulfilment.

#### Results

306 patients were analysed at 12-month and 222 at 24-month. The mean age of patients at 12-month and 24-month were  $60.2 \pm 10.3$  years and  $60.3 \pm 10.0$  years respectively. There were 139 male and 167 female patients in the 12-month group and 101 male and 121 female patients in the 24-month group.

The following MCID were identified:

At 12-month:

CMS 6.7 (95% CI 4.5-8.9), UCLA 3.0 (95% CI 2.4-3.7), OSS 3.3 (95% CI 2.1-4.6)

At 24-month:

CMS 6.3 (95% CI 3.6-9.1), UCLA 2.9 (95% CI 2-3.7), OSS 2.7 (95% CI 2.1-3.4)

The MCID identified with the two anchor questions and between the two follow-up time points were similar.

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Combining the results of both follow-up and taking the higher value as the minimal score required, the MCID necessary to constitute a significant change in patient's perceived outcome is 6.7 for CMS, 3.0 for UCLA, and 3.3 for OSS.

### **Conclusions**

CMS, UCLA, and OSS are valid tools for calculation of MCID after arthroscopic RC repair and the various MCID calculated could be used as a benchmark for interpretation of these scores and serve as a tool to power future comparative studies.