

Appendix

Clinical Outcome Measures

The Western Ontario Rotator Cuff Index (WORC) questionnaire²⁴ consists of twenty-one questions that delve into the domains of physical symptoms, social well-being, work, sports and recreation, and emotional well-being. The highest or most symptomatic score is 2100, and the best or asymptomatic score is 0. The score is reported as a percentage of the score associated with a normal rotator cuff (by subtracting the total from 2100, dividing by 2100, and multiplying by 100).

The American Shoulder and Elbow Surgeons (ASES) score²⁵ is a shoulder-specific assessment tool developed by the ASES for use in patients with all types of shoulder problems. The patient self-evaluation is divided into two sections, pain and activities of daily living (ADLs). Pain is recorded on a visual analog scale, and each ADL is recorded on a numeric scale. The two sections are weighted equally and the maximum possible total score is 100, with a higher score corresponding to a better the outcome.

The Constant score²⁶ is a validated shoulder-specific functional outcome measure. It places greater emphasis on range of motion and strength than the previous two instruments. In addition, a self-assessment portion evaluates pain and the ability to perform tasks of daily living. A higher score corresponds to a better outcome, with the maximum possible score of 100 points corresponding to the disease-free state. The research assistants received training on administration of the Constant instrument. (As the WORC and ASES are self-administered, no specific patient coaching by the research assistants was required for those portions of the assessment.)

The strength score was determined with the use of a hand-held dynamometer anchored to a solid surface. The instrument was held with the arm in 90° of forward flexion. Patients were instructed to apply an upwardly directed maximal force for a duration of three seconds. The mean strength was calculated from three separate trials.