Practice Patterns of Joint-Preserving Alternatives to Reverse Shoulder Arthroplasty for Irreparable Rotator Cuff Tears

Reginald O. Chinweze[1], MD LLM; Mariano Menendez[1], MD

[1]University of California, Davis, Sacramento, California

***Keywords*:** Irreparable Rotator Cuff Tear; Reverse Shoulder Arthroplasty; Superior Capsular Reconstruction; Tendon Transfer; Claims Analysis

***Abstract*:**

Reverse shoulder arthroplasty (RSA) is increasingly used for irreparable rotator cuff tears, yet concerns regarding implant longevity and use in younger, active patients have sustained interest in joint-preserving alternatives, including superior capsular reconstruction (SCR), subacromial balloon spacer implantation (SBS), lower trapezius tendon transfer (LTT), and biologic tuberoplasty (BT). We evaluated contemporary adoption, persistence, and perceived effectiveness of these procedures using a surgeon survey and national claims analysis. A 24-item cross-sectional survey was distributed to Pacific-Western Shoulder and Elbow Society members (June–August 2025) capturing surgeon demographics, procedure utilization (ever/current), reasons for de-implementation, and perceived effectiveness across four joint-preserving options. In parallel, a national claims study identified adults undergoing first surgical management within 90 days of rotator cuff tear diagnosis with ≥365-day baseline activity and laterality anchoring for ipsilateral outcomes. Survey responses were summarized descriptively with graphical reporting. Eighty-nine surgeons responded; nearly all reported performing ≥1 joint-preserving procedure. SCR was most-commonly performed (79%), followed by LTT (46%), BT (36%), and SBS (28%). SCR had the highest reported reduction/abandonment (63%), followed by LTT (57%) and BT (52%); the most cited reasons were suboptimal outcomes (65%) and insufficient evidence (58%). Claims analyses identified 349,244 cases: arthroscopic rotator cuff repair 69.8%, arthroscopy alternatives 20.1%, shoulder arthroplasty 8.2%, and tendon transfer 0.10%; an SCR proxy code was 1.7%. From 2015 to 2023, arthroplasty increased from 4.1% to 14.9% of index strategies, while the SCR proxy declined from 2.5% to 1.2%. Arthroplasty use was strongly age-dependent (0.45% in 18–49 vs 22.9% in ≥70 years).

Surgeon reported de-implementation of joint-preserving procedures, particularly SCR, paralleled low and declining claims capture, alongside rising arthroplasty-driven salvage, suggesting consolidation toward RSA with selective niche use of joint-preservation pathways as evidence and confidence evolve.

***Contact Information for Presenting Author**: rchinweze@health.ucdavis.edu*