

## ■ INFOGRAPHIC

# Infographic: Minimum five-year outcomes of reverse total shoulder arthroplasty using a trabecular metal glenoid base plate

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The indications for reverse total shoulder arthroplasty (RTSA) have expanded from its original indication of cuff tear arthropathy to management of proximal humeral fractures, revision shoulder arthroplasty, and massive irreparable cuff tears in the elderly.<sup>1</sup>

The semi-constrained design of a RTSA could potentially lead to increased wear and loosening of the prosthesis, in particular the glenoid component requiring revision surgery.<sup>2,3</sup> To increase implant survival, glenoid implants using trabecular metal (TM) have been designed to improve immediate and long-term glenoid fixation. Only short-term studies have been published reporting on clinical and radiological outcomes.<sup>4,5</sup>

With this study, we aim to report on medium to long-term survivorship of a large consecutive series of primary TM-RTSAs, along with minimum five-year clinical and radiological outcomes.

A total of 190 RTSAs in 168 patients who had TM-RTSA for rotator cuff arthropathy and osteoarthritis with deficient cuff were included. The implant was revised in ten patients (5.2%) with a median time to revision of 21.2 months (interquartile range (IQR) 9.9 to 41.8).

The Kaplan-Meier survivorship estimate at seven years was 95.9% for aseptic mechanical failure of the glenoid and 94.8% for all-cause revision. Minimum five-year clinical and radiological outcomes were available for 103 and 98 RTSAs, respectively, with a median follow-up time of six years (IQR 5.2 to 7.0). Median postoperative Oxford Shoulder Score was 38 (IQR 31 to 45); Constant and Murley score was 60 (IQR 47.5 to 70); forward flexion 115°; abduction 95°; and external rotation 25°. Scapular notching was seen in 62 RTSAs (63.2%).

In conclusion, we present the longest-term series of TM-backed glenoid in the current literature, and

report a 94.8% survival at seven years with satisfactory clinical and radiological outcomes.

## References

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