NICE National Institute for Health and Care Excellence

NICE guidance

Superior capsular augmentation for massive rotator cuff tears

HealthTech guidance

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Your responsibility

This guidance represents the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take this guidance fully into account, and specifically any special arrangements relating to the introduction of new interventional procedures. The guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Commissioners and/or providers have a responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties. Providers should ensure that governance structures are in place to review, authorise and monitor the introduction of new devices and procedures.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guidance replaces IPG619.

1 Recommendations

1.1 Current evidence on the safety and efficacy of superior capsular augmentation for massive rotator cuff tears is limited in quantity and inadequate in quality. Therefore, this procedure should only be used in the context of research. Find out what only in research means on the NICE interventional procedures guidance page.

1.2 Research should address patient selection, type of graft and technique used, long-term outcomes including shoulder function, and patient-reported outcome measures.

2 The condition, current treatments and procedure

The condition

2.1 Patients with rotator cuff tears may have shoulder pain and weakness accompanied by functional limitation leading to a reduced quality of life. Rotator cuff tears can be caused by an injury or can develop gradually. They can be minor or severe depending on the degree of damage to the tendon. Minor tears to the rotator cuff are very common and may not cause any symptoms at all. Diagnosis is usually by ultrasound or MRI.

Current treatments

2.2 Conservative treatment may include physiotherapy, pharmacological treatments (including pain relief and topical or oral non-steroidal anti-inflammatory drugs) and corticosteroid injections. If the tear is severe or has not responded to other treatments, surgical interventions such as debridement, rotator cuff repair, bridging rotator cuff reconstruction, subacromial smoothing, tendon transfer, or shoulder arthroplasty may be needed.

The procedure

2.3 Superior capsular augmentation aims to improve pain symptoms and shoulder function in patients with massive and otherwise irreparable rotator cuff tears. The intention is to reduce superior gleno-humeral translation and restore superior stability with minimal re-tear rates. The optimal repair uses the patient's own rotator cuff muscles and tendons, but if the tear is too large augmentation with other tissue may be needed.

2.4 Superior capsular augmentation is done arthroscopically or by open surgery, with

the patient either in the lateral decubitus position, or the 'beach-chair' position, and under general anaesthesia. It involves using a fascia lata autograft, an allograft or a regenerative tissue matrix. The arm of the patient is kept in neutral abduction and in neutral rotation. The supraspinatus and infraspinatus are repaired as much as possible and a biceps tenotomy or tendonesis are done on any biceps tear or instability. The superior glenoid and greater tuberosity are debrided to prepare for reconstruction. Using suture anchors, the graft is attached medially to the glenoid superior tubercle and laterally to the greater tuberosity. Side-to-side sutures between the graft and the infraspinatus tendon, as well as between the graft and the residual anterior supraspinatus or subscapularis may also be added to improve force coupling. Post-operative rehabilitation is essential and can be long and difficult.

3 Committee considerations

The evidence

3.1 To inform the committee, NICE did a rapid review of the published literature on the efficacy and safety of this procedure. This comprised a comprehensive literature search and detailed review of the evidence from 5 sources, which was discussed by the committee. The evidence included 3 case series and 1 case report, and is presented in table 2 of the interventional procedures overview. The committee also considered safety data from 1 conference abstract. Other relevant literature is in the appendix of the overview.

3.2 The specialist advisers and the committee considered the key efficacy outcomes to be: reduction in pain, improvement in shoulder function and quality of life.

3.3 The specialist advisers and the committee considered the key safety outcomes to be: graft failure, infection, suture and anchor detachment.

3.4 Patient commentary was sought but none was received.

Committee comments

3.5 Various types of grafts have been used for this procedure.

3.6 The committee was advised that patients having this procedure should have intensive physiotherapy done by a physiotherapist specialised in shoulder rehabilitation, before and after the procedure.

Update information

Minor changes after publication

January 2026: Interventional procedures guidance 619 has been migrated to HealthTech guidance 477. The recommendations and accompanying content remain unchanged.

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Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.