HAUTE AUTORITÉ DE SANTÉ

CLINICAL PRACTICE GUIDELINE – QUICK REFERENCE GUIDE[1]

Managing chronic painful shoulder without instability in adults

Scope

Extra-articular disorders of the shoulder, ie all types of chronic degenerative or calcific tendinitis affecting the rotator cuff.

Exclusions: instability, extraregional disorders, local neurogenic and acromioclavicular disorders, mechanical, inflammatory or infectious glenohumeral joint disorders, and adhesive capsulitis.

Clinical examination

- **Take case history**
- **Examine/palpate**
- **Test active and passive range of motion** (to check there is no restriction of the glenohumeral joint and to rule out adhesive capsulitis)
- **Test rotator cuff**

Observation	Implication
Muscle atrophy in the supraspinatus or infraspinatus fossa	Supraspinatus and/or infraspinatus tendons probably torn
Full passive mobility (patient lying down) and limited active mobility (patient in a sitting position)	Rotator cuff tear
Abnormal bulging of the biceps muscle	Biceps long head tear
Weakness:	
- Jobe test (empty can test)	Supraspinatus tear (sensitivity 77-95%, specificity 65–68%)
- External rotation with the elbow close to the body	Infraspinatus tear
- External rotation with the arm abducted 90°	Infraspinatus and teres minor tear
- Internal rotation with the hand on the abdomen (belly-press test)[a]	Subscapularis tear

[a] More common than the lift-off test which is painful for the patient

[1] For full guidelines (in English) and supporting scientific evidence (in French), see *Modalités de prise en charge d'une épaule douloureuse chronique non instable chez l'adulte* (July 2005) - www.has-sante.fr

- Classic tests for biceps tendinitis (palm-up test, etc.) ➔ not specific.
- Neer and Hawkins impingement tests ➔ sensitive but not very specific.

First imaging test: Standard radiography

- **Purpose**
  - to rule out other diagnoses
  - to reveal any extra-articular calcification
  - to suggest the presence of an extensive degenerative tear if the subacromial space is < 7 mm

- **Useful views**
  - anterposterior (AP) views in three rotations
  - lateral view of the cuff, showing tendon insertion sites
  - visualisation of the acromioclavicular joint may reveal the presence of other conditions.

- **Ultrasound cannot replace standard radiography** but may be used to complement the clinical examination if there is uncertainty whether the patient has a full-thickness tendon tear.

Second-line imaging tests

- To be considered:
  - when first-line treatment has failed
  - earlier if the patient is under 50
  - if there is any suspicion of a traumatic lesion in a patient of any age.

- The following tests **DO NOT** provide all the prognostic factors needed to decide on surgery:
  ultrasound, arthrography alone, and CT scan without contrast medium.

- When assessing degenerative tendinitis of the rotator cuff PRIOR TO SURGERY, use either:
  - Magnetic resonance imaging (MRI)
  - CT arthrography
  - MR arthrography.

Medical and surgical treatment of tendinitis

Calcific tendinitis (for symptomatic forms only)	
First-line treatment	**Refractory cases**
Analgesics Oral non-steroidal anti-inflammatories (NSAIDs) Subacromial cortisone injections[a] Ultrasound physiotherapy (grade B)	Percutaneous needle aspiration and lavage for large, radiographically homogeneous calcifications (grade C) Lithotripsy(grade B) Arthroscopy (grade C): last resort

[a] Injections under radiological or ultrasound guidance are more effective than unguided injections (grade C).

Tendinitis without cuff tear	Tendinitis with cuff tear
Analgesics, NSAIDs and subacromial cortisone injections (grade B) Physiotherapy for recovering and maintaining range of motion in the joint and to make full use of muscular capacity (grade B) Acromioplasty as a last resort in mature adults; not indicated in young sports players (grade C)	Drug therapy as first-line therapy (grade C) If no improvement after 6 months, consider surgery. Cuff tears vary in severity, from a partial tear of 1 tendon to extensive tearing of 3-4 tendons. How they are tolerated depends on the functional stress put on each tendon. Not all tears require surgical repair (grade C). The risk of fatty degeneration of the muscle compromises the prognosis of surgery and functional therapy (grade C).

For tendonitis with cuff tear requiring surgery, two types of surgery are possible:

(i) repair surgery, if anatomical conditions and general situation permit: tendon reattachment, tendon transfer, muscle flaps etc. (grade C)

(ii) pain-reducing surgery for rotator cuff lesions that cannot be repaired, involving the subacromial bursa, biceps long head tendon and/or the acromion (grade C).