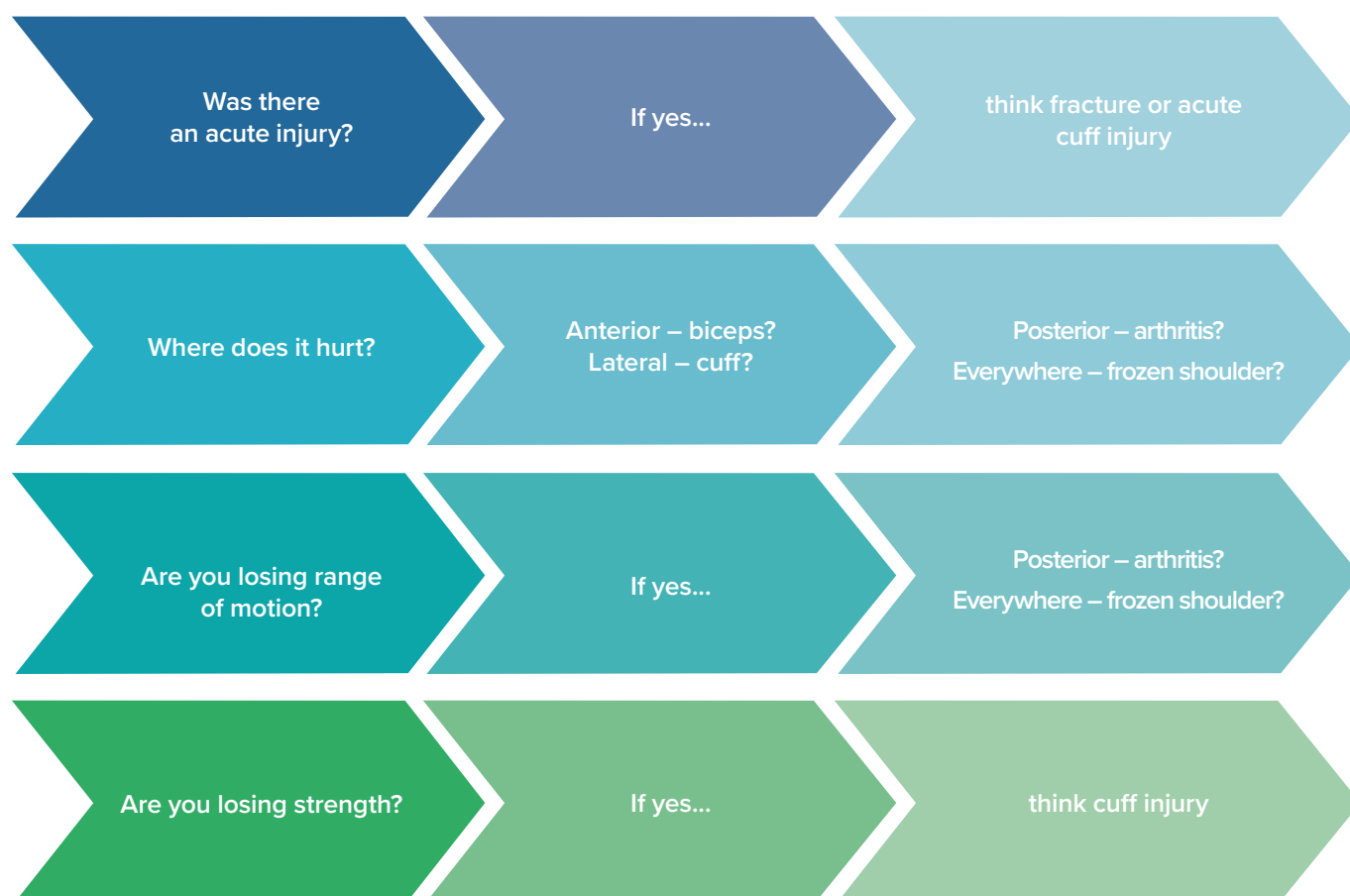


Assessment and management of shoulder pain in primary care

Shoulder pain is a common presentation to general practitioners and physiotherapists, but too often training in orthopaedic and musculoskeletal conditions inadequately prepares general practitioners to manage this problem. This article sets out a straightforward guideline to help identify the patient's source of shoulder pain and initiate an appropriate management plan including urgent or elective referral.

The most common conditions we see are rotator cuff tears, shoulder arthritis, frozen shoulder, and biceps tendon problems. These constitute the vast majority of shoulder pathology and it's important to remember they can co-exist. The clinical zebras are calcific tendonitis, tumours and cervical spine pathology.

To differentiate between the big four I ask four big questions which can often point you straight to the main culprit, and are summarised in the following diagram;



There are numerous specific tests in the examination of the painful shoulder (over 120!). While it's beyond the scope of this article to fully explore all the possible manoeuvres, a couple of high yield ones to have in your arsenal are:

1. The painful arc - Examiner brings the patients shoulder into full abduction. For a positive test result, shoulder pain between 600 and 1200 indicates subacromial impingement or rotator cuff disease.
2. Jobe's test (empty can) - Arm in 900 abduction, 300 horizontal adduction and 900 internal rotation and elbow extended with thumb pointing towards the floor. A positive test is pain or weakness while resisting downward pressure applied proximal to the elbow from the examiner.
3. External rotation strength test - Elbow in 900 flexion, examiner applies pressure proximal to the wrist while the patient resists bringing forearms to the midline. Pain or weakness during application of pressure is a positive test.

If these tests are positive, they will point you to a rotator cuff tear while your history and imaging will help you distinguish the other conditions.

A note on loss of motion and shoulder stiffness:

If you are unable to passively improve the shoulder's range of motion, there are 3 possible underlying conditions.

1. Shoulder arthritis
2. Frozen Shoulder
3. Shoulder dislocation

If a patient is gradually losing both active and passive range of motion in their shoulder the main differentials are frozen shoulder and shoulder arthritis. Shoulder plain radiographs must be normal for a diagnosis of frozen shoulder to be made. This underscores the importance of getting a plain radiographs specifically requesting true AP, outlet and axillary lateral views – otherwise you'll get 3 AP's!

Finally, let us consider some important aspects of common conditions and their management.

Rotator cuff tears

The presence of symptomatic rotator cuff disease (RCD) increases with age and occurs in about 15% of those older than 70. The majority of patients with RCD improve with non-operative treatment and some patients with full thickness tears can compensate to recover function with non-operative treatment, even though the tear does not heal without surgery. But which rotator cuff tears need urgent surgery? Generally, if it is a full thickness acute tear and the patient has weakness on examination then early referral for surgical opinion should be undertaken. If it is not full thickness or is a chronic cuff tear then a course of non-operative measures including rest, activity modification, anti-inflammatories, cortisone injection and a physiotherapy program can be commenced. But if the patient has no improvement within 3 months then they should be referred for surgical evaluation.

Frozen Shoulder (Adhesive Capsulitis)

This is a diagnosis of exclusion. It commonly affects patients in the 40-60 year age group, females more than males, and is also associated with conditions such as diabetes and thyroid disorders. Strangely, we saw an increase in incidence during the COVID-19 pandemic. The symptoms progress in three clinical stages; the freezing (painful), frozen (stiffness) and thawing phases. The average duration of symptoms is 18 months and 91% return to full or near full function. Management mainly consists of reassurance, anti-inflammatories, physical therapy and sometimes intra-articular steroid injections. Occasionally, if the symptoms are particularly severe and persistent, then an arthroscopic capsular release and shoulder manipulation maybe of long-term benefit.

Shoulder osteoarthritis

Arthritis patients present with a loss of motion in at least two planes and a gradual stepwise deterioration in function. Conservative management including anti-inflammatories and steroid injections can provide temporary relief during episodes of pain. Although it might hurt more, regular use of the arm does not do further damage to the shoulder. There has been no evidence that PRP effectively treats shoulder arthritis. If the loss of motion is interfering with regular activities a shoulder replacement has been shown to provide 80-90% pain relief and return of motion.

I hope these guidelines can assist primary care physicians to detect the most likely cause of shoulder pain, investigate appropriately and initiate a management plan including specialist referral when needed.



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Areas of Interest

- Total shoulder replacement
- Reverse shoulder replacement
- Computer navigated shoulder surgery
- Rotator cuff injuries
- Labral tears
- Shoulder instability
- Carpal tunnel surgery
- Upper limb trauma surgery