

## What is the initial approach to the treatment of shoulder pain?

### EVIDENCE-BASED ANSWER

There is some limited evidence supporting the use of nonsteroidal anti-inflammatory drugs (NSAIDs) in the initial treatment of shoulder pain. There is no evidence in support of most other therapies, including intra-articular or subacromial corticosteroid injection, intra-articular NSAID injection, oral corticosteroid treatment, physiotherapy, ultrasound, heat or ice therapy, laser treatment, electrotherapy, and iontophoresis (Grade of recommendation: B, based on extrapolation from systematic reviews and randomized clinical trials with inconsistent and inconclusive results)

### EVIDENCE SUMMARY

Because of a lack of uniformity in the definition of shoulder disorders and a wide variation in outcomes assessed in clinical trials, there is limited opportunity to compare and pool the results of individual trials. Even when studies define the disorders and outcomes similarly, the heterogeneity of the interventions, timing of outcome assessment, inadequate reporting of results, and small sample sizes limit the inference of specific therapeutic recommendations for shoulder pain.

A recent Cochrane Review concluded that there is little evidence to either support or refute the efficacy of most common interventions for shoulder pain.<sup>1</sup> The pooled analyses of 2 studies of rotator cuff tendinitis suggested that NSAIDs may be superior to placebo in improving the range of abduction, but there was no significant weighted difference between pain scores.<sup>2,3</sup> Another randomized controlled trial<sup>4</sup> found 14-day treatment with oral NSAIDs superior to placebo for relieving acute shoulder pain (86% vs 56%; absolute risk reduction 30%; 95% confidence interval, 10%-50%).

A randomized single-blind study of primary care patients reported superiority of manipulative therapy over classic physiotherapy in the treatment of shoulder pain (70% vs 10% cure rate at 5 weeks).<sup>5</sup> Manipulative therapy as performed by general practitioners or physiotherapists included mobilization and manipulation of the upper spine and ribs, acromioclavicular joint, and the glenohumeral joint. Classic physiotherapy as performed by physiotherapists included only exercise therapy, massage, and physi-

cal applications. For the patients with synovial pain, intra-articular corticosteroid injection was superior to both manipulative therapy and classic physiotherapy (cure rates of 75% vs 40% and 20%, respectively, at 5 weeks), yet many primary care physicians may not have enough experience to specifically diagnose synovial pain.

### RECOMMENDATIONS FROM OTHERS

We identified no other published recommendations or guidelines from professional organizations.

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### CLINICAL COMMENTARY

Most ambulatory patients with primary nontraumatic shoulder pain have rotator cuff tendonitis. Mild, acute disease usually responds to initial rest from movements that aggravate the pain, followed by a gradual return to full activity as tolerated. Time remains a strong ally in this setting. I have found NSAIDs and corticosteroid injections helpful in reducing pain and improving range of motion, but only in the subacute and chronic forms of rotator cuff tendonitis and osteoarthritis. Physiotherapy, although of uncertain analgesic benefit, may minimize the muscular atrophy and loss of flexibility associated with joint injury. The studies above specifically address pain arising from the shoulder joint itself. Pain may also be referred to the shoulder from a remote site (as in atypical angina or other intrathoracic pathology). The initial management of shoulder pain requires consideration of such secondary causes as well.

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### REFERENCES

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Details of the search strategies used for developing the Clinical Inquiries answers can be found on the *JFP* Web site at [www.jfponline.com](http://www.jfponline.com).