Literature Review

3,315 abstracts reviewed

965 articles recalled for full review

69 articles included after full text review and quality analysis

Clinical Practice Guideline Overview

Management of Glenohumeral Joint Osteoarthritis

Published March 23, 2020

This clinical practice guideline addresses the management of patients with glenohumeral joint osteoarthritis (GJO). It is not intended to address the management of GJO from etiologies other than osteoarthritis.

Literature Review

Strong and Moderate Guideline Recommendations*

Strong evidence supports that there is no benefit to the use of hyaluronic acid in the treatment of glenohumeral joint osteoarthritis.

Strong evidence suggests that obese patients with glenohumeral osteoarthritis do not experience an increase in the rate of early postoperative complications.

Strong evidence supports that gender/sex is not associated with better or worse post-operative outcomes.

Strong evidence suggests that patients with glenohumeral joint osteoarthritis who have more comorbidities experience higher rates of early post-arthroplasty complications.

Strong evidence supports that the clinician may utilize pegged or keeled glenoid components in patients with glenohumeral joint osteoarthritis and a well-functioning rotator cuff. Pegged components demonstrate less radiolucent lines, but the effect on clinical outcomes and survivorship are unclear.

Moderate evidence supports that older age at the time of surgery is associated with lower revision rates.

Moderate evidence supports that smoking is associated with inferior post-operative outcomes.

Moderate evidence supports that surgeons not use metal-backed cementless glenoid components.

Moderate quality evidence suggests that, while both higher and lower preoperative functioning patients with glenohumeral joint osteoarthritis will likely experience improvement following arthroplasty, patients with higher pre-operative function may experience less functional improvement.

Moderate evidence suggests that depression is associated with inferior post-operative outcomes in patients with glenohumeral joint osteoarthritis undergoing arthroplasty.

Moderate evidence supports that surgeons can utilize subscapularis peel, lesser tuberosity osteotomy, or tenotomy when performing shoulder arthroplasty.

Strong evidence supports that there is no benefit to the use of hyaluronic acid in the treatment of glenohumeral joint osteoarthritis.

Strong evidence suggests that obese patients with glenohumeral osteoarthritis do not experience an increase in the rate of early postoperative complications.

Strong evidence supports that gender/sex is not associated with better or worse post-operative outcomes.

Strong evidence suggests that patients with glenohumeral joint osteoarthritis who have more comorbidities experience higher rates of early post-arthroplasty complications.

Strong evidence supports that the clinician may utilize pegged or keeled glenoid components in patients with glenohumeral joint osteoarthritis and a well-functioning rotator cuff. Pegged components demonstrate less radiolucent lines, but the effect on clinical outcomes and survivorship are unclear.

Moderate evidence supports that older age at the time of surgery is associated with lower revision rates.

Moderate evidence supports that smoking is associated with inferior post-operative outcomes.

Moderate evidence supports that surgeons not use metal-backed cementless glenoid components.

Strong evidence supports that anatomic shoulder arthroplasty demonstrates more favorable function and pain relief in the short- to mid-term follow-up when compared to hemiarthroplasty for the treatment of glenohumeral osteoarthritis.

Future Research

The following items are in need of future research: risk factors for implant survivorship of total shoulder arthroplasty; the efficacy of physical therapy (PT) and other non-surgical treatment modalities as an alternative to TSA, as well as prehabilitation/pre-operative surgical planning using thin slice 3-D scan with planning software; and improved clinical outcomes and/or implant survivorship for reverse total shoulder arthroplasty vs. anatomic total shoulder arthroplasty when significant posterior glenoid bone loss is present.

Learn More at OrthoGuidelines!

* Please visit OrthoGuidelines.org to view the limited and consensus recommendations for this guideline.