

Specific Question:

In patients with a chronic/degenerate rotator cuff tear of the shoulder, is surgical repair as effective as physiotherapy in improving function and reducing pain?

Clinical bottom line

There is little good quality evidence that allow us to directly compare surgery with physiotherapy for patient over 50 with rotator cuff tears. Where they have been compared, results at 12 months do not show a clinically significant difference between the two interventions.

Why is this important?

Patient with chronic rotator cuff tears are referred to both physiotherapy, interface services and orthopaedics. It is important that the correct treatment options are offered to patients at the appropriate time, without delay and treatment decisions are made jointly between the patient and the clinicians.

Search timeframe (e.g.2008- 2018)

Inclusion Criteria

	Description	Search terms (In the final document this should be a combination of your clinical and librarian search terms)
Population and Setting	Adults	Adults, shoulder, rotator cuff, chronic (longer than 3 months) shoulder pain,;; Clinical outcome; Intratendinous tear; Degenerative, age related tear
Intervention or Exposure		Surgical repair, open, closed, arthroscopic, arthroscopic repair Orthopaedic
Comparison, if any		Physiotherapy, exercises, rehabilitation, usual care, analgesia
Outcomes of interest		Pain and Function
Types of studies		Systematic reviews, RCTs

Exclude: Inflammatory arthritis, fractures, children

Routine Databases Searched

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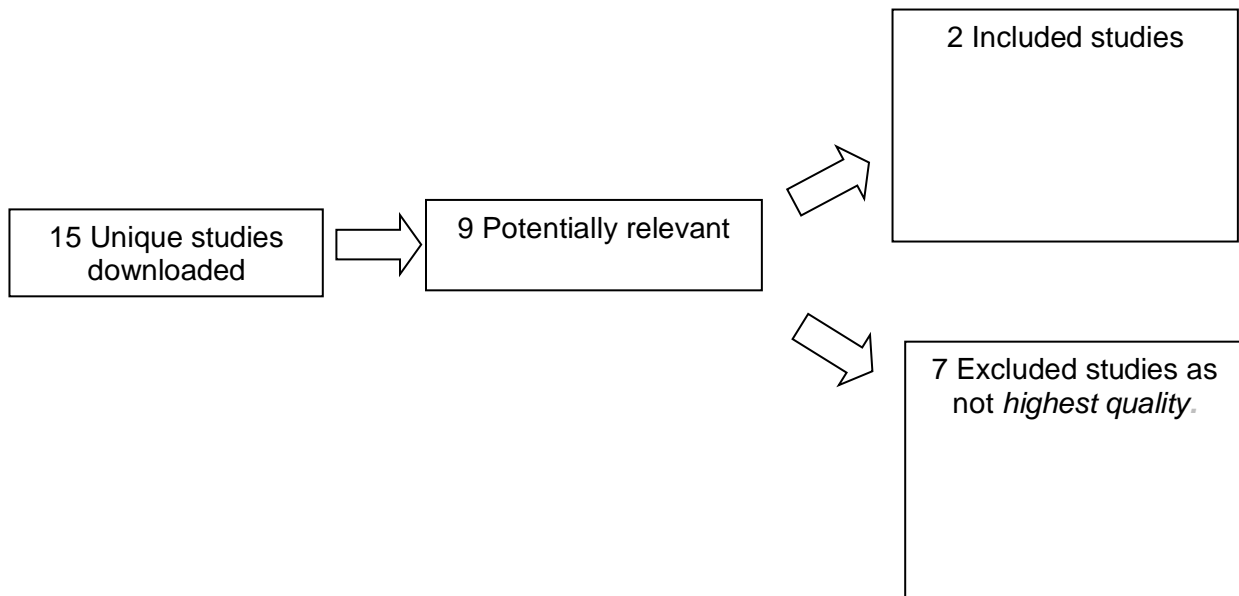
Date CAT completed:3.11.18
Date CAT to be reviewed: 3.11.20

Getting Evidence into Clinical Practice:
Musculoskeletal Research Facilitation Group (CAT Group)
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Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The, Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of Science, Sports discus and Pub med

Date of search- July 2018

Results of the search



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Table 1- Detail of included studies

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
<p>Piper et al 2018</p> <p>Systematic review and meta analysis</p>	<p>Level 1 and 11 research</p> <p>Search from inception to 2016</p>	<p>Operative versus non operative management of full thickness rotator cuff tears</p> <p>Constant and VAS outcomes measures used</p>	<p>1013 articles, 3 qualified for inclusion (269 patients with 1 year follow up)</p> <p>Mean age 59-65</p> <p>Results highlights statistically significant changes in outcomes for surgical group, but not clinically significant.</p> <p>Results did not reach minimally important difference for Constant or VAS</p>	<p>Used PRISMA guidance for search</p> <p>2 independent reviewers</p> <p>English sties only</p> <p>Didn't give detail of non operative intervention</p> <p>Didn't give detail of how long patient had experienced symptoms</p>
<p>Kim et al 2018</p> <p>Systematic review and network meta analysis</p>	<p>Rcts on various treatment for rotator cuff tear</p> <p>-over 50</p> <p>-small to medium cuff tear</p> <p>-pain or function</p> <p>-12 months follow up</p>	<p>Reviewed effects of rotator cuff treatments tested in rcts</p> <p>Conservative= meds, physio or injection</p> <p>Surgery- open , mini, arthroscopic</p> <p>Primary outcome function, secondary pain</p>	<p>15 rcts (n=1522)</p> <p>Mean patient age over 50</p> <p>12 studies has supraspinatus spinatus tear (3 didn't state)</p> <p>6 treatment methods identified</p> <p>Arthroscopic surgery most frequently evaluated (n=12 studies)</p> <p>Suggest patient undergoing open surgery and physio showed stat significant improvement in function compared to physio alone.</p> <p>Open surgery and physio improved pain when compared to physio alone</p> <p>Suggests evidence of comparisons is still lacking</p>	<p>Clear inclusion and exclusion</p> <p>2 independent reviewers</p> <p>Cochrane risk of bias tool used</p> <p>Used function improvement at 1 year</p> <p>Medication and injection not included</p> <p>Risk of bias evaluated, 24% did not report method of randomisation.</p> <p>No standard treatment protocols</p>

Summary

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The available evidence does not give a clear indication that surgery is the most appropriate first option for the over 50s with a rotator cuff tear. Some surgical interventions are not routinely used in the UK (open surgery) and the physiotherapy interventions were not clearly described. In the network meta analysis, medication and injection were excluded. Standardised treatment protocols may assist future research.

Implications for Practice/research

In light of the findings it would be reasonable to try the least expensive and least invasive management approach first and adopt a stepped care approach for patients who are over 50 with a rotator cuff tear.

What would you tweet? (140 characters)

Rotator cuff tears in the over 50s, no good quality evidence to suggest surgery should be first choice of treatment

References

Kim s Hwang J Kim MJ Lim JY Lee WH Choi JE Systematic review with network meta-analysis of randomised trials of rotator cuff treatments International Journal of Technology Assessment in Healthcare 2018 Vol 34 (no1) p78-86

Piper CC Hughes AJ Nevasier AS Ma Y Wang H Operative versus non operative treatment for the management of full thickness rotator cuff tears systematic review and meta analysis Journal of shoulder and Elbow surgery March 2018 vol 27 (no 3) p572-576