

***Comparative Effectiveness of Treatment Options for Subacromial Shoulder Conditions:  
A Network Meta-Analysis***

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*Background:* Subacromial shoulder conditions (SSCs) account for nearly 70% of all shoulder pain presentations to primary care, affecting one in three persons, half of whom still report pain and functional limitations 12 months post-initial diagnosis. Various treatments are available for management of SSCs, but clinical decision making is complex partly due to limited evidence on comparative effectiveness of treatments. This network meta-analysis (NMA) aimed to combine evidence on direct and indirect treatment comparisons to determine the comparative effectiveness of treatments for improving pain and function in SSC patients.

*Methods:* Bibliographic databases were searched up to August 2016 to identify randomised controlled trials comparing interventions for adults with SSCs. Using predefined inclusion and exclusion criteria, titles, abstracts, and full texts were independently screened by two reviewers. Quality of trials was assessed using the Cochrane Risk of Bias Tool, and extracted data regarding study characteristics and results were independently checked. A random-effects NMA is currently being undertaken. Effectiveness of interventions will be summarised using pooled effect estimates, 95% confidence intervals and intervention rankings for pain and function at various follow-up times. Clinicians and patients with SSCs formed an advisory group contributing to study design, interpretation and dissemination of findings.

*Results:* 142 trials of 21 different treatments for SSCs were identified. Networks are currently being developed. The largest network including 53 trials and 17 treatments will summarize evidence for short-term comparative effectiveness on pain. Considerable heterogeneity is observed, partly due to studies offering treatments in combination or in isolation, wide variation in follow-up times. The risk of small study bias will be assessed given the large number of trials with small sample sizes. Analysis is ongoing and results will be presented at the summit.

*Conclusions:* A summary of evidence on the comparative effectiveness of conservative and surgical interventions in the management of SSCs will provide further insight to inform clinical decision making. ID: CRD42014009788.