Manual Therapy for the Treatment of Shoulder Pain: Clinical Effectiveness
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**Acknowledgments:**

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**About CADTH:** CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

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Research Question
What is the clinical effectiveness of using manual therapy for the treatment of adult or pediatric patients with shoulder pain?

Key Findings
Twelve systematic reviews (four with meta-analysis), 18 randomized controlled trials, and four non-randomized studies were identified regarding the clinical effectiveness of manual therapy for adults and pediatric patients with shoulder pain.

Methods
A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2012 and July 13, 2017. Internet links were provided, where available.

Selection Criteria
One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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<th>Table 1: Selection Criteria</th>
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<td><strong>Population</strong></td>
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| **Intervention**            | Manual therapy, including manipulation, mobilization, traction, and soft tissue therapy:  
  - **Definition of manual therapy:** Techniques that involve the application of hands-on and/or mechanically-assisted treatments  
  - **Definition of manipulation:** Manual treatment applied to the spine or joints of the upper or lower extremity that incorporates a high velocity, low amplitude impulse or thrust applied at or near the end of a joint’s passive range of motion  
  - **Definition of mobilization:** Manual treatment applied to the spine or joints of the upper or lower extremity that incorporates a low velocity and small or large amplitude oscillatory movement, within a joint’s passive range of motion  
  - **Definition of traction:** Manual or mechanically assisted application of an intermittent or continuous distractive force  
  - **Definition of soft tissue therapy:** a group of soft tissue therapies intended to target muscles for the purpose of specific goals and relax muscles (e.g., massage, etc.) |
Table 1: Selection Criteria

<table>
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<tr>
<th>Comparators</th>
<th>Outcomes</th>
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<td>Pharmacological interventions (including opioids);</td>
<td>Clinical effectiveness and safety, e.g.:</td>
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<tr>
<td>Non-pharmacological interventions (e.g., education, exercise, other manual therapies, electrotherapy, etc.);</td>
<td>- Self-rated recovery;</td>
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<td>Placebo/sham interventions;</td>
<td>- Functional recovery (e.g., disability, return to activities, work, or school);</td>
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<tr>
<td>Wait list;</td>
<td>- Clinical outcomes (e.g., but not limited to, pain, health-related quality of life, depression, time to benefit, no change or worsening of pain, etc.);</td>
</tr>
<tr>
<td>No interventions</td>
<td>- Adverse events and harms</td>
</tr>
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Study Designs: Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and non-randomized studies.

Twelve systematic reviews (four with meta-analysis), 18 randomized controlled trials, and four non-randomized studies were identified regarding the clinical effectiveness of manual therapy for adults and pediatric patients with shoulder pain. No relevant health technology assessments were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-Analyses


Randomized Controlled Trials


30. Buttagat V, Eungpinichpong W, Kaber D, Chatchawan U, Arayawichanon P. Acute effects of traditional Thai massage on electroencephalogram in patients with
PubMed: PM22579427

Non-Randomized Studies

PubMed: PM24050647

PubMed: PM23891481

PubMed: PM22030329

PubMed: PM22951537
Appendix — Further Information

Systematic Reviews and Meta-Analyses

*Mixed Intervention*


*Shoulder Not Specified*


Randomized Controlled Trials

*Mixed Intervention*


Guidelines and Recommendations

