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CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Manual Therapy for Persistent or Chronic Non-Specific Neck Pain: Clinical Effectiveness, Cost-Effectiveness and Guidelines

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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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Questions or requests for information about this report can be directed to **requests@cadth.ca**

Research Questions

1. What is the clinical effectiveness of manual therapies for non-cancer, non-specific neck pain?
2. What is the cost-effectiveness of manual therapies for non-cancer, non-specific neck pain?
3. What are the evidence based guidelines regarding manual therapies for non-cancer, non-specific neck pain?

Key Findings

One systematic review with meta-analyses was identified regarding the clinical effectiveness of manual therapies for non-cancer, non-specific neck pain. One systematic review of clinical practice guidelines and two evidence-based guidelines were identified regarding the use manual therapies for non-cancer, non-specific neck pain. Additionally, two economic evaluations were identified regarding the cost-effectiveness of manual therapies for non-cancer, non-specific neck pain.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were manual therapies and neck pain. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or network meta-analyses, economic studies and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2017 and September 18, 2019. Internet links were provided, where available.

Selection Criteria

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

Table 1: Selection Criteria

Population	Adults living with chronic non-cancer, non-specific neck pain, excluding pregnant patients
Intervention	Manual therapy, including manipulation, mobilization, traction, and soft tissue therapy
Comparator	Q1-2: Pharmacological interventions No treatment (e.g., waitlist, sham interventions) Usual care (if usual care is pharmacological interventions only) Q3: Not applicable
Outcomes	Q1: Clinical effectiveness (e.g., pain reduction, functional performance, quality of life, disability level, safety, global impression of recovery, adverse events, skin reactions) Q2: Cost-effectiveness (e.g., incremental cost per quality adjusted life year gained, incremental cost-effectiveness ratio, quality adjusted life years) Q3: Guidelines
Study Designs	Health technology assessment, systematic reviews, and meta-analyses, economic evaluations, and evidence-based guidelines

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 economic evaluations and evidence-based guidelines.

One systematic review with meta-analyses was identified regarding the clinical effectiveness of manual therapies for non-cancer, non-specific neck pain.[1] One systematic review[2] of clinical practice guidelines and two evidence-based guidelines[5-6] were identified regarding the use manual therapies for non-cancer, non-specific neck pain. Additionally, two economic evaluations were identified regarding the cost-effectiveness of manual therapies for non-cancer, non-specific neck pain.[3,4] 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

1. Coulter ID, Crawford C, Vernon H, et al. Manipulation and mobilization for treating chronic nonspecific neck pain: a systematic review and meta-analysis for an appropriateness panel. *Pain Physician*. 2019 Mar;22(2):E55-e70. PubMed: PM30921975

2. Parikh P, Santaguida P, Macdermid J, Gross A, Eshtiaghi A. Comparison of CPG's for the diagnosis, prognosis and management of non-specific neck pain: a systematic review. *BMC Musculoskelet Disord*. 2019 Feb 14;20(1):81. PubMed: PM30764789

Economic Evaluations

3. Pach D, Piper M, Lotz F, et al. Effectiveness and cost-effectiveness of tuina for chronic neck pain: a randomized controlled trial comparing tuina with a no-intervention waiting list. *J Altern Complement Med*. 2018 Mar;24(3):231-237.
PubMed: PM29072931

4. Verhaeghe N, Schepers J, van Dun P, Annemans L. Osteopathic care for low back pain and neck pain: A cost-utility analysis. *Complement Ther Med*. 2018 Oct;40:207-213.
PubMed: PM30219451

Guidelines and Recommendations

5. Bier JD, Scholten-Peeters WGM, Staal JB, et al. clinical practice guideline for physical therapy assessment and treatment in patients with nonspecific neck pain. *Phys Ther*. 2018 Mar 1;98(3):162-171.
PubMed: PM29228289

6. Neck Pain: Revision 2017: Clinical practice guidelines linked to the international classification of functioning, disability and health from the Orthopaedic Section of the American Physical Therapy Association. Orthop Sports Phys Ther. 2017;47(7):A1-A83 https://www.jospt.org/doi/pdf/10.2519/jospt.2017.0302. Accessed 2019 Sep 24.

Appendix — Further Information

Previous CADTH Reports

7. Kanga I, Severn M. CADTH Rapid Response Reports. *Manual Therapy for Recent - Onset or Persistent Neck Pain: A Review of Clinical Effectiveness and Guidelines*. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health
Copyright (c) 2017 Canadian Agency for Drugs and Technologies in Health.; 2017.
PubMed: PM30234929
Also available from:
https://cadth.ca/sites/default/files/pdf/htis/2017/RC0910%20Chiropractic%20Interventions%20for%20Neck%20Pain%20Grade%20III%20Final%20revised.pdf

Systematic Reviews

Unclear Population

8. Yang JD, Tam KW, Huang TW, Huang SW, Liou TH, Chen HC. Intermittent cervical traction for treating neck pain: A meta-analysis of randomized controlled trials. *Spine (Phila Pa 1976)*. 2017 Jul 1;42(13):959-965.
PubMed: PM27792118

9. Yao M, Sun YL, Dun RL, et al. Is manipulative therapy clinically necessary for relief of neck pain? A systematic review and meta-analysis. *Chin J Integr Med*. 2017 Jul;23(7):543-554.
PubMed: PM27484765