

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Physiotherapy Interventions for the Management of Neck or Back Pain: Cost- Effectiveness

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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.

Research Question

What is the cost-effectiveness of physiotherapy interventions for the management of back and neck pain?

Key Findings

Eight economic evaluations were identified regarding costs and cost-effectiveness of physiotherapy interventions for the management of neck and back 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. Methodological filters were applied to limit retrieval to economic studies. 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 27, 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.

Table 1: Selection Criteria

Population	Adults with acute or chronic neck and/or back pain
Intervention	Physiotherapy interventions including: <ul style="list-style-type: none"> • Manual therapy • Electrophysical agents (e.g., TENS, ultrasound, heat, ice) • Exercise and massage • Acupuncture and dry needling • Education (teaching patients about pain, self-management)
Comparator	Opioids, no treatment, wait-list, placebo
Outcomes	Cost-effectiveness outcomes (e.g., incremental cost per QALY or health benefit gained)
Study Designs	Economic evaluations

Results

Eight economic evaluations were identified regarding costs and cost-effectiveness of physiotherapy interventions for the management of neck and back pain.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

Eight economic evaluations¹⁻⁸ were identified. Seven evaluations¹⁻⁷ focused on back pain and one evaluation⁸ focused on both neck and back pain.

Early physical therapy compared with delayed or wait list treatment resulted in higher one year costs, but better quality of life (measured in QALYs) for patients with acute back pain.¹ Earlier physical therapy was supported as a cost-effective alternative to usual delayed therapy.¹ The costs of low back pain (LBP) were also reduced with early referral to guideline adherent physical therapy within the Military Health System.³ For mild LBP, an educational booklet reduced health care costs and sickness absence and was found to be cost saving when compared to normal care (representing the natural course of LBP).² Receipt of the booklet combined with a verbal review of the material was also shown to reduce health costs.²

The cost-effectiveness of specific intervention providers was evaluated in another report.⁵ Acupuncturists and chiropractors were more cost effective than other specialties and massage therapy was the only cost-effective option among non-doctor providers for quality of life measures.⁵

In chronic LBP, transcutaneous electrical nerve stimulation (TENS) patients had lower annual per-patient opioid use costs and pharmacy utilization costs when compared to non-TENS patients.⁴ A separate evaluation found that the costs for chronic LBP patients treated with TENS were lower than non-TENS patient, even when accounting for the costs of the device itself.⁷ Spinal manipulative therapy was also found to not increase the costs of treatment (including lost productivity costs) for chronic LBP.⁶

Finally, the costs of a physiotherapy outpatient department was evaluated in one report.⁸ Physiotherapy was found to be good value for back pain and neck pain when compared to other health care interventions.⁸

References Summarized

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Appendix — Further Information

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