

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Physical Therapist-Led Physical Activity for Chronic, Non-Cancer Knee Pain: Clinical Effectiveness, Cost- Effectiveness and Guidelines

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Research Questions

1. What is the clinical effectiveness of physical therapist-led physical activity for chronic, non-cancer knee pain?
2. What is the cost-effectiveness of physical therapist-led physical activity for chronic, non-cancer knee pain?
3. What are the evidence-based guidelines regarding physical therapist-led physical activity for chronic, non-cancer knee pain?

Key Findings

Two systematic reviews were identified regarding the clinical effectiveness of physical therapist-led physical activity for chronic, non-cancer knee pain. In addition, two evidence-based guidelines were identified regarding physical therapist-led physical activity for chronic, non-cancer knee 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 physical therapy and knee pain. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, and 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, 2014 and October 7, 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 knee pain from any cause
Intervention	Physical activity/therapy guided by a physical therapist or physiotherapy exercises (excluding physical activity not guided by a physical therapist [e.g., self-guided exercise, Pilates, yoga])
Comparators	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 assessments, systematic reviews, 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 assessments, systematic reviews, and meta-analyses are presented first, followed by economic evaluations and evidence-based guidelines.

Two systematic reviews¹⁻² were identified regarding the clinical effectiveness of physical therapist-led physical activity for chronic, non-cancer knee pain. In addition, two evidence-based guidelines³⁻⁴ were identified regarding physical therapist-led physical activity for chronic, non-cancer knee pain. No health technology assessments or economic evaluations were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Agency for Healthcare Research and Quality (AHRQ). Noninvasive nonpharmacological treatments for chronic pain: a systematic review update [DRAFT]. Rockville (MD): AHRQ; 2019 Oct 8:
<https://effectivehealthcare.ahrq.gov/products/nonpharma-treatment-pain-update/draft-research>. Accessed 2019 Oct 11.
2. Kooiker L, Van De Port IG, Weir A, Moen MH. Effects of physical therapist-guided quadriceps-strengthening exercises for the treatment of patellofemoral pain syndrome: a systematic review. *J Orthop Sports Phys Ther*. 2014 Jun;44(6):391-402, b391.
[PubMed: PM24766358](#)

Economic Evaluations

No literature identified.

Guidelines and Recommendations

3. The Royal Australian College of General Practitioners (RACGP). Guideline for the management of knee and hip osteoarthritis. 2nd ed. East Melbourne (AU): RACGP; 2018 Jul:
<https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Guidelines/Joint%20replacement/Guideline-for-the-management-of-knee-and-hip-OA-2nd-edition.pdf>. Accessed 2019 Oct 11.
See Section 3.1.3- Exercise
4. Willy RW, Högglund LT, Barton CJ, et al. Patellofemoral pain. *J Orthop Sports Phys Ther*. 2019 Sep;49(9):Cpg1-cpg95:
<https://www.jospt.org/doi/pdf/10.2519/jospt.2019.0302>. Accessed 2019 Oct 11.
[PubMed: PM31475628](#)
See: Interventions-Specific Modes of Exercise Therapy

Appendix — Further Information

Previous CADTH Reports

5. Exercise for the management of knee osteoarthritis: a review of clinical effectiveness. (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2017 Aug:
<https://www.cadth.ca/sites/default/files/pdf/htis/2017/RC0901%20Physio%20for%20OA%20Final.pdf>. Accessed 2019 Oct 11.

Health Technology Assessments

Physiotherapy Not Specified in Abstract

6. Health Quality Ontario. Structured education and neuromuscular exercise program for hip and/or knee osteoarthritis: a health technology assessment. *Ont Health Technol Assess Ser*. 2018;18(8):1-110.
[PubMed: PM30443280](#)

Systematic Reviews and Meta-analyses

Unclear Comparator in Abstract

7. van der Heijden RA, Lankhorst NE, van Linschoten R, Bierma-Zeinstra SM, van Middelkoop. Exercise for treating patellofemoral pain syndrome. *Cochrane Database Syst Rev*. 2015 Jan 20;1:CD010387.
[PubMed: PM25603546](#)

Economic Evaluations

Unclear Comparator in Abstract

8. Abbott JH, Wilson R, Pinto D, Chapple CM, Wright AA. Incremental clinical effectiveness and cost effectiveness of providing supervised physiotherapy in addition to usual medical care in patients with osteoarthritis of the hip or knee: 2-year results of the MOA randomised controlled trial. *Osteoarthritis Cartilage*. 2019 Mar;27(3):424-434.
[PubMed: PM30553932](#)