

Update on Physiotherapy Rehabilitation After Total Knee or Hip Replacement: OHTAC Recommendation

Ontario Health Technology Advisory Committee

March 2014

Suggested Citation

This report should be cited as follows:

Ontario Health Technology Advisory Committee (OHTAC). Update on physiotherapy rehabilitation after total knee or hip replacement: OHTAC recommendation [Internet]. Toronto: Queen's Printer for Ontario; 2014 March. 9 p. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/ontario-health-technology-assessment-series/physiotherapy-rehabilitation-after-total-knee-or-hip-replacement>.

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Conflict of Interest Statement

All authors in the Evidence Development and Standards branch at Health Quality Ontario are impartial. There are no competing interests or conflicts of interest to declare.

About Health Quality Ontario

Health Quality Ontario (HQO) is an arms-length agency of the Ontario government. It is a partner and leader in transforming Ontario's health care system so that it can deliver a better experience of care, better outcomes for Ontarians, and better value for money.

Health Quality Ontario strives to promote health care that is supported by the best available scientific evidence. The Evidence Development and Standards branch works with advisory panels, clinical experts, developers of health technologies, scientific collaborators, and field evaluation partners to provide evidence about the effectiveness and cost-effectiveness of health interventions in Ontario.

To conduct its systematic reviews of health interventions, the Evidence Development and Standards branch examines the available scientific literature, making every effort to consider all relevant national and international research. If there is insufficient evidence on the safety, effectiveness, and/or cost-effectiveness of a health intervention, HQO may request that its scientific collaborators conduct economic evaluations and field evaluations related to the reviews. Field evaluation partners are research institutes focused on multicentred clinical trials and economic evaluation, as well as institutes engaged in evaluating the safety and usability of health technologies.

About the Ontario Health Technology Advisory Committee

The Ontario Health Technology Advisory Committee (OHTAC) is a standing advisory subcommittee of the Board of Directors of Health Quality Ontario. Based on the evidence provided by Evidence Development and Standards and its partners, OHTAC makes recommendations about the uptake, diffusion, distribution, or removal of health interventions within the provincial health system. When making its recommendations, OHTAC applies a unique decision-determinants framework that takes into account overall clinical benefit, value for money, societal and ethical considerations, and the economic and organizational feasibility of the health care intervention in Ontario.

Publishing Health Quality Ontario Research

When the evidence development process is nearly completed, draft reviews, reports, and OHTAC recommendations are posted on HQO's website for 21 days for public and professional comment. For more information, please visit: <http://www.hqontario.ca/evidence/evidence-process/evidence-review-process/professional-and-public-engagement-and-consultation>.

Once finalized and approved by the Board of Directors of Health Quality Ontario, the research is published as part of the *Ontario Health Technology Assessment Series*, which is indexed in MEDLINE/PubMed, Excerpta Medica/Embase, and the Centre for Reviews and Dissemination database. Corresponding OHTAC recommendations and associated reports are also published on the HQO website. Visit <http://www.hqontario.ca> for more information.

When sufficient data are available, OHTAC tracks the ongoing use of select interventions it has previously reviewed, compiling data by time period and region. The results are published in the Ontario Health Technology Maps Project Report.

Disclaimer

This report was prepared by the Evidence Development and Standards branch at Health Quality Ontario or one of its research partners for the Ontario Health Technology Advisory Committee and was developed from analysis, interpretation, and comparison of scientific research. It also incorporates, when available, Ontario data and information provided by experts and applicants to HQO. The analysis may not have captured every relevant publication and relevant scientific findings may have been reported since the development of this recommendation. This report may be superseded by an updated publication on the same topic. Please check the Health Quality Ontario website for a list of all publications: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations>.

Table of Contents

Background	5
OHTAC Findings:	5
2005 OHTAC Recommendations:.....	5
Update to Recommendations:.....	6
OHTAC Recommendations	7
References.....	8

Background

In 2005, Health Quality Ontario (then known as the Medical Advisory Secretariat, MAS), published an evidence based analysis on physiotherapy rehabilitation after primary total knee or hip replacement. At that time, the Ontario Health Technology Advisory Committee (OHTAC) met to review the evidence-based analysis and the OHTAC findings were as follows: (1)

OHTAC Findings

A systematic review of the scientific literature was completed by the Medical Advisory Secretariat to determine the effectiveness of three physiotherapy interventions on physical functioning 1 year after primary total hip or knee replacement surgery:

1. Home-based physiotherapy compared with inpatient physiotherapy
2. Clinic-based physiotherapy compared with self-managed home exercises
3. Preoperative exercise program compared with no preoperative exercise

Based on one large randomized controlled trial of high quality, there is no advantage to receiving inpatient physiotherapy compared with a home-based physiotherapy program for primary total hip or knee replacement patients.

Based on one large randomized controlled trial of low to moderate quality, there is no advantage to attending an outpatient physiotherapy clinic and practicing a self-managed home exercise program when compared with practicing a self-managed home exercise program and receiving supportive/monitoring phone calls from a physiotherapist for primary total hip or knee replacement patients.

Based on one large randomized controlled trial of moderate quality, there is no advantage of an exercise program beginning 4-6 weeks before primary total knee replacement on physical functioning after surgery.

Based on one small, randomized controlled trial of moderate quality, there is limited advantage of an exercise program beginning 8 weeks before primary total hip replacement.

2005 OHTAC Recommendations

1. The health system should support the move towards home-based physiotherapy after primary total knee or hip replacement and discharge from acute care. Current initiatives that are underway in the province to improve allocation of physiotherapy services for primary hip and knee replacement patients should be supported by the health care system.
2. For patients who could attend an outpatient physiotherapy clinic, consideration may be given to a self-managed home exercise program with a physiotherapist monitoring through phone calls.
3. The full benefit of a preoperative exercise program is not as yet realized.

Update to Recommendations

In 2013, the OHTAC recommendations on physiotherapy rehabilitation were incorporated into HQO's Episode of Care for Hip and Knee Replacements as part of the Ontario Government's Quality Based Procedures. (2)

Health Quality Ontario's Hip and Knee Replacement Expert Advisory Panel advised OHTAC that their recommendation to support the move towards home-based physiotherapy after primary total knee or hip replacement and discharge from acute care was restrictive. While the Expert Advisory Panel agreed with the evidence that physiotherapy services could be provided in the community rather than the inpatient setting, the recommendation did not account for clinic-based physiotherapy services. To better reflect current accessibility and practice of physiotherapy services after hip and knee replacement in Ontario, the Expert Panel recommended OHTAC consider rewording their original recommendation for home-based physiotherapy to the more inclusive term of community-based physiotherapy.

In consideration of the Expert Advisory Panel's advice, OHTAC updated the recommendation for Physiotherapy Rehabilitation after Total Knee or Hip Replacement.

OHTAC Recommendations

- OHTAC recommends the health system support the move towards community-based physiotherapy after primary total knee or hip replacement and discharge from acute care. In regards to location of physiotherapy within the community, the health system should allow for flexibility, depending on the local care context and the patients' needs. Current initiatives that are underway in the province to improve allocation of physiotherapy services for primary hip and knee replacement patients should be supported by the health care system.
- For patients who could attend an outpatient physiotherapy clinic, consideration may be given to a self-managed home exercise program with a physiotherapist monitoring through phone calls.
- The full benefit of a preoperative exercise program is not as yet realized.

References

- (1) Medical Advisory Secretariat. Physiotherapy rehabilitation after total knee or hip replacement: an evidence-based analysis. Ontario Health Technology Assessment Series 2005; 3 p. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/ontario-health-technology-assessment-series/physiotherapy-rehabilitation-after-total-knee-or-hip-replacement>.
- (2) Health Quality Ontario; Ministry of Health and Long-Term Care. Quality-based procedures: Clinical handbook for primary hip and knee replacement. Toronto: Health Quality Ontario; 2014 February. 95 p. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/clinical-handbooks>.

Health Quality Ontario
130 Bloor Street West, 10th Floor
Toronto, Ontario
M5S 1N5
Tel: 416-323-6868
Toll Free: 1-866-623-6868
Fax: 416-323-9261
Email: EvidenceInfo@hqontario.ca
www.hqontario.ca

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