Structured Education and Neuromuscular Exercise Program for Hip and/or Knee Osteoarthritis: Health Quality Ontario Recommendation

FINAL RECOMMENDATION

- Health Quality Ontario, under the guidance of the Ontario Health Technology Advisory Committee, recommends publicly funding a structured education and neuromuscular exercise program for the management of people with osteoarthritis of the hip and/or knee.

RATIONALE FOR THE RECOMMENDATION

The Ontario Health Technology Advisory Committee has reviewed the findings of the health technology assessment¹ and concluded that a structured education and neuromuscular exercise program provides clinical benefit in the management of hip and/or knee osteoarthritis and is consistent with patient values and preferences. The Ontario Health Technology Advisory Committee supported data collection and outcome monitoring as an integral part of the program.

Although a group-based structured education and neuromuscular exercise program would increase costs to Ontario’s health system, the Ontario Health Technology Advisory Committee agreed that such a program would likely represent good value for money.
### Decision Determinants for a Structured Education and Neuromuscular Exercise Program for Hip and/or Knee Osteoarthritis

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>Subcriteria</th>
<th>Decision Determinants Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall clinical benefit</strong></td>
<td>Effectiveness</td>
<td>Overall, a structured education and neuromuscular exercise program was found to be more effective than usual care for improving physical function, quality of life, and the ability to perform activities of daily living.</td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td>No significant difference in serious adverse events and non-serious adverse events were reported for people with knee osteoarthritis randomized to a structured education and neuromuscular exercise program versus usual care.</td>
</tr>
<tr>
<td></td>
<td>Burden of illness</td>
<td>As of 2009, in Canada, the prevalence of knee osteoarthritis was 29%, and the prevalence of hip osteoarthritis was 12%.</td>
</tr>
<tr>
<td></td>
<td>Need</td>
<td>Publicly funded physiotherapy is available in Ontario, though access is limited and wait times can be long.</td>
</tr>
<tr>
<td><strong>Consistency with expected societal and ethical values</strong></td>
<td>Societal values</td>
<td>Expected to be congruent with societal values. People with osteoarthritis of the hip and/or knee interviewed reported that they viewed the GLA:D Canada program to be consistent with their efforts to manage symptoms through exercise.</td>
</tr>
<tr>
<td></td>
<td>Ethical values</td>
<td>Expected to be congruent with ethical values.</td>
</tr>
<tr>
<td><strong>Value for money</strong></td>
<td>Economic evaluation</td>
<td>Compared with usual care, a group-based structured education and neuromuscular exercise program consisting of two educational sessions and 24 exercise sessions is associated with an incremental cost of $719 and an incremental 0.03 QALYs for people with knee osteoarthritis, resulting in an incremental cost-effectiveness ratio of $23,967 per QALY gained. Therefore, a group-based structured education and neuromuscular exercise program seems to be cost-effective.</td>
</tr>
<tr>
<td><strong>Feasibility of adoption into health system</strong></td>
<td>Economic feasibility</td>
<td>We estimated that public funding for this type of program in Ontario might cost about $21 million in the first year and $92 million in the fifth year, depending on uptake. If the program could be delivered with 12 exercise sessions, the cost might be reduced to $12 million in the first year and $53 million in the fifth year, again depending on uptake.</td>
</tr>
<tr>
<td></td>
<td>Organizational feasibility</td>
<td>The GLA:D Canada group-based structured education and neuromuscular exercise program is already offered at private clinics in Ontario, and clinicians have been trained to deliver this program to people with osteoarthritis of the hip and/or knee.</td>
</tr>
</tbody>
</table>

*Abbreviations: GLA:D Canada, Good Life with osteoarthritis in Denmark–Canada; QALY, quality-adjusted life-year.

*The anticipated or assumed common ethical and societal values held in regard to the target condition, target population, and/or treatment options. Unless there is evidence from scientific sources to corroborate the true nature of the ethical and societal values, the expected values are considered.*
REFERENCE


Disclaimer

About Health Quality Ontario

About the Ontario Health Technology Advisory Committee

How to Obtain Recommendation Reports From Health Quality Ontario

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

ISBN 978-1-4868-2583-7 (PDF)
© Queen’s Printer for Ontario, 2018

Citation