



<b>Title</b>	<b>Adjunctive Hyperbaric Oxygen Therapy for Diabetic Foot Ulcer: An Economic Analysis</b>
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## Aim

To determine if adjunctive hyperbaric oxygen therapy (HBOT) is a cost-effective option compared to standard care in treating patients with diabetic foot ulcers (DFU) in Canada.

## Conclusions and results

Results from the clinical review corroborate findings in previous assessments that adjunctive HBOT for DFU is more effective than standard care, although the evidence remains limited. The proportion of major lower extremity amputation (LEAs) can decrease from 32% in patients receiving standard care to 11% in those receiving adjunctive HBOT. There was a decrease in the proportion of unhealed wounds with HBOT, but the reverse was true for minor LEAs. Based on the available data, the economic evaluation showed that adjunctive HBOT for DFU was cost effective compared to standard care. The 12-year cost for a patient receiving HBOT was 40 695 Canadian dollars (CAD) compared to CAD 49 786 for standard care alone, with an associated increase of 0.63 quality-adjusted life-years (QALYs) (3.01 QALYs for standard care to 3.64 QALYs for those receiving HBOT). The use of HBOT will require additional resources and planning.

## Recommendations

Not applicable.

## Methods

Controlled studies that compared adjunctive HBOT for DFU with standard wound care in patients of all ages were identified through a literature search. Summary estimates were derived for proportions of major and minor LEAs and healed ulcers in patients who received adjunctive HBOT and those who received standard care only. Using a decision model, the cost effectiveness of adjunctive HBOT was compared with that of standard care alone in treating 65-year-old patients. A health

services budget impact analysis was conducted using prevalence data from the literature and utilization data from Alberta and Canada.

## Further research/reviews required

Good quality studies are needed to confirm the comparative benefits of this technology in Canadian health care.