



Title	Liquid Oxygen Therapy at Home
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Reference	AÉTMIS 04-08. Internet access to full text. ISBN 2-550-43750-0 (French edition ISBN 2-550-43751-9) vi-13 p.

Aim

The costs and benefits of portable oxygen systems for home use by patients with chronic obstructive pulmonary disease (COPD) were assessed in an AÉTMIS report published in 2004. The agency was subsequently asked, by the provincial ministry of health and social services, to assess the costs and benefits specific to portable liquid oxygen therapy, as compared to compressed gas or oxygen concentrator systems. AÉTMIS was also asked to assess implications for the use of portable liquid oxygen in Québec's home oxygen program.

Conclusions and results

Because liquid oxygen therapy is a lighter system than either the compressed gas or oxygen concentrator systems, it may be prescribed to patients who need to leave their homes on a regular basis. Access to this type of oxygen therapy varies within and across Canadian jurisdictions, largely depending on the patient's insurance coverage (eg use is higher in Ontario where it is covered by provincial health insurance).

In Québec this type of system is considered an exceptional treatment provided only to patients who spend lengthy periods outside their homes.

Compared to other home oxygen systems, there are no data to indicate that liquid systems allow for longer periods of therapy, improve life quality, increase patient adherence to a therapy regime, or increase mobility. On the other hand, one study (Sweden) reported that liquid oxygen is 4 times as expensive as standard therapy.

A small minority of patients with COPD (ie those with active lifestyles) would likely benefit from the enhanced portability of liquid oxygen therapy.

Recommendations

- Encourage a consensus approach for researchers, clinicians and decision-makers to identify the appropriate types of patients and conditions for prescribing liquid oxygen therapy, and how its use should be monitored.

- This process should be conducted within the more global process of developing guidelines for home oxygen services in general.
- There is some uncertainty among the providers about the priority of setting liquid oxygen therapy criteria, given competing needs.

Method

AÉTMIS reviewed the scientific literature available in a number of databases, as well as other documents and government reports.

Further research/reviews required

As indicated in the broader review of portable oxygen therapy (AÉTMIS, 2004), it is highly unlikely that there will be further trials to help resolve questions concerning the use of liquid oxygen therapy. New portable oxygen supply systems are being tested for clinical use and may provide alternatives to liquid oxygen therapy in the future.