Title: Diaphragmatic Stimulators for Amyotrophic Lateral Sclerosis Patients: Clinical Effectiveness

Date: 10 April 2008

Research question:

What is the evidence for the clinical effectiveness of diaphragmatic stimulators for use in amyotrophic lateral sclerosis (ALS) patients to improve breathing, improve quality of life or to prevent or delay the need for a ventilator?

Methods:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 1, 2008), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international HTA agencies, and a focused Internet search. Results include articles published between 2003 and April 2008, and are limited to English language publications only. No filters were applied to limit the retrieval by study type. Internet links are provided, where available.

Results:

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews and meta-analyses are presented first. These are followed by randomized controlled trials (RCTs) and observational studies.

One systematic review pertaining to the management of respiration in ALS patients was identified in the literature search. There was no mention of the use of diaphragmatic stimulators in the abstract, but the full text review may include that information. No health technology assessments, RCTs or observational studies were found. The search did however identify an ongoing clinical trial seeking to delay the respiratory decline of ALS patients with the use of diaphragmatic stimulators. Additional information of interest has been included in the Appendix.

Health technology assessments

None identified

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Systematic reviews and meta-analyses


Randomized controlled trials
None identified

Observational studies
None identified

Ongoing clinical trials


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Appendix – Further information:

Randomized controlled trials


Review articles


Additional references

