

- Title** Transcranial Direct Current Stimulation (TDCS) for Stroke Rehabilitation
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- Reference** Technology Review Report 016/2016, online:
http://www.moh.gov.my/index.php/database_stores/store_view_page/30/297

Aim

To assess the effectiveness, safety, and cost-effectiveness of tDCS as part of treatment modalities in stroke rehabilitation.

Conclusions and results**Effectiveness:**

Good level of retrievable evidence; tDCS (anodal/cathodal/dual) alone or combined with rehabilitation therapies improved ADL, enhance motor function/performance, promote motor hand recovery, beneficial effect on balance and gait, improve swallowing function and picture naming.

Safety:

Transcranial direct current stimulation was safe with minimal adverse events or complications such as headache, dizziness, and tingling or slight itching sensation at the site of electrode placement. Besides, there was no evidence retrieved on the approval of the device by the United States Food and Drug Administration (US FDA).

Cost-effectiveness:

There was no retrievable evidence on the cost-effectiveness or other economic analysis of tDCS as part of treatment modalities in stroke rehabilitation. However, the price of the device ranged from RM 20,000 to RM 30,000 and was provided free of charge for selected patients (government employee/pensioner, disable, welfare) in University Malaya Medical Centre.

Recommendations (if any)

Based on the above review, tDCS (anodal/cathodal/dual) alone or combined with rehabilitation therapies may be used as part of treatment modalities in stroke rehabilitation.

Methods

Electronic databases were searched through the Ovid interface: Ovid MEDLINE® In-process and other Non-indexed citations and Ovid MEDLINE® 1946 to present, EBM Reviews - Cochrane Central Register of Controlled Trials - May 2016, EBM Reviews - Cochrane Database of Systematic Reviews - 2005 to June 2016, EBM Reviews - Health Technology Assessment – 2nd Quarter 2016, EBM Reviews - Database of Abstracts of Reviews of Effects – 1st Quarter 2016, EBM Reviews – NHS Economic Evaluation Database

1st Quarter 2016. Searches were also run in PubMed. Google was used to search for additional web-based materials and information. No limits were applied. Additional articles were identified from reviewing the references of retrieved articles. Last search was conducted on 17th June 2016.

Further research/reviews required

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Written by

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