

Procedure Information Sheet – Transcranial Direct Current Stimulation (tDCS)

Hosp No. :	HKID No.:
Case No. :	
Name :	
DOB :	M / F
Adm Date :	
Contact No.:	

1. Introduction

- 1.1. Transcranial Direct Current Stimulation (tDCS) is an emerging form of non-invasive brain stimulation. It involves delivery of weak direct currents through the scalp and skull to the targeted cortical area modulating the cortical excitability. Depending on the polarity of stimulation, tDCS can upregulate or downregulate cortical excitability.
- 1.2. tDCS could be used together with conventional neuro-rehabilitation training in order to promote better training result in stroke patients.

2. Procedure

- 2.1. tDCS delivers direct electrical stimulation to the cortex by using a two saline-soaked surface electrodes placed directly onto the scalp and a small electric current (1–2 mA) is delivered. The duration of procedure is around 20 minutes. Allied health rehabilitation services are conducted if applicable.
- 2.2. tDCS will be carried out by the trained staffs.

3. Procedural Preparation and contraindications

- 3.1. tDCS should not be performed if patient has any metal implants or cardiac pacemaker.
- 3.2. Patient should not drink alcohol and should have enough rest beforehand.
- 3.3. Please inform our staffs of your drug history and follow our instruction of drug intake accordingly.
- 3.4. Please have hair washing before the day of examination. Do not put on any hair styling gel, hair wax, hair spray etc. on the hair after washing.
- 3.5. Please remove all metallic objects from head and neck area e.g. jewelry, glasses, hairclips, earrings or any head accessories etc.
- 3.6. Stimulation could not applied if scalp skin broken.

4. Outcomes

- 4.1. Overseas clinical research shows tDCS could be applied to a variety of diseases including nerve/non-nerve pain, Parkinson's disease, stroke, facial paralysis, depression, anxiety and migraines. A comprehensive analysis of multiple medical research revealed that tDCS is effective in the treatment of depression, and it is also effective as a rehabilitation treatment after stroke and an adjuvant treatment for Parkinson's disease. In addition, it is helpful for long-term pain and improving the concentration of teenagers.
- 4.2. tDCS could promote stroke rehabilitation in conjunction with medications and physiotherapy. For patient needs stroke rehabilitation and other neurology diseases, physician could tailor-made the treatment plan.

5. Side effects and possible complications

- 5.1. tDCS uses a very low current, about 1-2mA, generated by the battery, which causes minimal trauma to the human body. Most people will not have any abnormal feeling, some people may feel a little itching, but will not feel pain.

6. Remarks

- 6.1. The above mentioned procedural information is by no means exhaustive, other unforeseen complications may occur in special patient groups or different individual. Please contact your physician for further enquiry.

7. References

- 7.1. Lefaucheur, JP et al. Evidence-based guidelines on therapeutic use of transcranial direct current stimulation (tDCS). Clinical Neurophysiology 128, 56–92 (2017).

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Patient/ Relative Signature: _____

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