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

## Procedure Information Sheet – Visual Evoked Potential Study

### 1. Introduction

- 1.1. Visual Evoked Potentials is a test to measure the electrical activities in the brain in response to visual stimulus. The test is non-invasive. It can diagnose the problems affecting the optic nerve
- 1.2. The electrophysiologic responses are recorded from the electrodes placing on the scalp, which usually originate from the occipital cortex, i.e. the area of the brain involved in receiving and interpreting visual signals. The visual stimulus could be an alternating checkerboard pattern or flashing light on a computer screen or google.

### 2. Procedural Preparation

- 2.1. Please follow your doctor's instruction for medication
- 2.2. Fasting is not required.
- 2.3. Please bring along your glasses on the day of the test
- 2.4. Please wash your hair the day before going to hospital. No hair cream, gel should be applied after shampoo.
- 2.5. For children under 3 years old:
  - 2.5.1. Sleep is to be discouraged 4 hours prior to the test to facilitate a possible spontaneous sleep recording.
  - 2.5.2. Parent/ guardian please bring along a bottle of milk, water, fruit juice or toys to entertain the baby during the test.
- 2.6. Some of the children may need sedatives in order to facilitate the recorded effectively. Please ask your doctor if you have any query.
- 2.7. Generally, the patient is able to go home after the test. For Sleep or sedated visual evoked potentials, patient should only go home after fully awake and assess by medical professionals.

### 3. Procedure

- 3.1. Skin preparation is needed:
  - 3.1.1. Health care profession would apply some abrasive gel to 3 electrode sites on your scalp with cotton stick and rub lightly in order to minimize artefact.
- 3.2. Electrode cables are attached over forehead, top and back of your head by conductive paste to detect electrical connection.
- 3.3. The procedure should be conducted in a dimly room
- 3.4. For pattern VEP
  - 3.4.1. The eyes are examined one at a time by covering the other eye with clean eye pad.
  - 3.4.2. The stimulus is produced by using an alternating checkerboard pattern on a computer screen.
  - 3.4.3. Patient needs to focus on the red spot on the checkerboard
- 3.5. For Flash VEP
  - 3.5.1. Patient needs to put on googles and the stimulus is produced by flashes of light
  - 3.5.2. This test could be used for unconscious patient or performed during sleep
  - 3.5.3. Sedation may be needed for uncooperative child.
- 3.6. After the procedure, the electrode cables will be removed from your head.
- 3.7. The procedure usually takes 30-45 minutes.
- 3.8. Neurologist will report the VEP and the test result will be explained in details by your case doctor.

### 4. Possible Risks and Complications

- 4.1. It is a generally safe procedure.
- 4.2. It is a non-invasive procedure and does not have any side effects.

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### 5. Remarks

5.1. The above mentioned procedural information is not exhaustive. Please contact your physician for further enquiry.

### 6. References

- 6.1. American Clinical Neurophysiology Society (2008) Guideline 9b: Guidelines on Visual Evoked Potentials. Journal of Clinical Neurophysiology. 23 (2): 138-156
- 6.2. Information Pamphlets: Neurophysiological tests. Queen Mary Hospital, Hong Kong.

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I acknowledged the above information concerning the operation or procedure. I have also been given the opportunity to ask questions and received adequate explanations concerning the condition and treatment plan.

Patient/ Relative Signature: \_\_\_\_\_

Patient/ Relative Name: \_\_\_\_\_

Date: \_\_\_\_\_

