

### INFORMATION FOR PATIENTS

Your doctor has recommended that you receive electro-convulsive therapy (ECT) for your illness because it is believed that ECT would be the most effective treatment for you at this time. Your doctor will discuss with you the other available treatments for your illness and the reasons why they are not being recommended at this time.

This information is provided to assist you in deciding whether or not to agree (consent) to receive a course of electro-convulsive therapy (ECT). Please take the time to read this information. Then, ask your doctor or nurse to explain anything about the treatment which you do not understand. If you then agree to receive a course of ECT, you will be asked to sign a consent form. (A copy of the consent form is attached).

ECT is a safe and effective treatment for some forms of mental illness. It is most commonly used to treat patients with severe depression. It is also used to treat patients with bipolar affective disorder who have manic illnesses. ECT is also used to treat patients with schizophrenia.

As is the case with many medical treatments, the actual way that ECT relieves symptoms of illness is unknown. It is now believed that the treatment affects some of the chemicals which transfer impulses or messages between nerve cells in the brain. The treatment may correct some of the biochemical changes which accompany some of the mental illnesses.

### THE TREATMENT PROCEDURE

A course of ECT consists of a number of individual treatments which are usually given two to three times per week with at least a day off in between treatments. The total number of treatments and their frequency for each patient are determined by their own doctor. The number varies, usually between 8 and 15, but it may be more or less depending on the degree of improvement of each patient's illness. The total number of treatments required cannot be predicted ahead of time.

Each treatment is given while the patient is asleep under general anaesthesia. The anaesthetic drug is injected by an anaesthetist through a needle inserted in a vein. Oxygen is given through a face mask and the level of oxygen in the blood and the electrocardiogram are monitored during the treatment.

The treatment procedure for ECT involves passing a small, controlled electric current between two metal discs (electrodes) which are applied on the surface of the scalp. The two electrodes may be placed on one side of the head for unilateral ECT or on both sides of the forehead for bilateral ECT. Unilateral or bilateral ECT is ordered for each patient by their own doctor.

The small electric current passes between the two electrodes and through part of the brain in order to stimulate the brain. That electrical stimulation induces a convulsion or seizure which usually lasts from 20 to 90 seconds. More than one stimulation may be required to induce a convulsion. In addition to the anaesthetic to induce sleep before every treatment, a drug is injected by the anaesthetist to partially paralyze the muscles so that the convulsion is well controlled.

The electric stimulus energy used to induce a convulsion at each treatment is based on a standardized protocol used at this hospital.

The patient is asleep during the entire treatment. This takes approximately 10 minutes from the time the anaesthetic is given until its effect wears off. Oxygen is given throughout this time. The treatment is not painful and the electric current and seizure are not felt by the patient.

### POTENTIAL RISKS AND BENEFITS

The most troublesome side effect of ECT is memory loss. Recovery from that memory loss begins a few weeks after treatment and is usually complete in most patients after six to nine months. There may be a permanent loss of memory for details of some events, particularly those which occurred some time before and during the weeks the treatment is given. Also, there may be some difficulty learning and remembering new information for a short period after ECT. However, the ability to acquire new memories recovers completely a few months after treatment. Thus, the treatment does not cause a permanent loss of the ability to learn and remember events following the treatment. A very small number of patients report severe problems with memory that remain for months or years. Some patients experience a brief period of confusion after waking from the anaesthetic. Some also experience muscle aches and headaches, but these are usually not severe and recover after a few hours.

The treatment is given under general anaesthesia. Therefore, like all forms of treatment given this way, there is a risk of death but this is now rare, between two and four deaths being reported for every 100,000 treatments. The risk may be higher for patients who have other physical illnesses. The effect of any patient's physical illnesses on the treatment risk will be discussed with that patient. Also, very rare with modern anaesthetic procedures are bone fractures and broken teeth or other dental injury. Spontaneous seizures rarely occur sometime after the treatment.

The potential benefit of the treatment is recovery from the symptoms of the illness for which ECT is prescribed. As with many forms of medical treatment, not all patients respond equally well. Some patients recover quickly; some symptoms may recover quickly while others require more treatments; some patients seem to recover but then the symptoms recur so that more treatments are required; and, some patients have symptoms which do not respond at all to the treatment.

Again, ECT has proven to be a safe and effective treatment for some illnesses when it is given according to modern standards of anaesthetic and psychiatric practice. If you wish, other information about the treatment is available. Please ask your doctor or nurse any questions you may have about the treatment and how it is given at this hospital.