

## Mental Health Services

### Information for Patients and their Relatives

#### What is ECT?

Electroconvulsive therapy (ECT) is a treatment for severe episodes of major depression, mania and some types of schizophrenia. It involves the use of a brief controlled electrical current to produce a seizure within the brain. This seizure activity is believed to bring about certain biochemical changes, which may cause your symptoms to diminish or to even disappear. There is an average of 12 treatments in a course, usually given at a frequency of three per week. This is optimal to produce a therapeutic effect. Sometimes a smaller or larger number may be necessary.

#### How is ECT administered?

ECT is usually administered in the morning, typically on Monday, Wednesday and Friday. You will not eat or drink after midnight the night before each treatment. Before the treatment, a small needle is placed in an arm vein so that the medications to put you to sleep and relax your muscles can be given at the time of the treatment. The treatment itself is given in a special ECT Treatment room located in the Clinic. ECT is administered by one of the psychiatrists or psychiatry registrars, all of whom have had specialised training and experience in this type of treatment. You will be brought into the Treatment Room and asked to lie down on a comfortable bed. A blood pressure cuff will be placed on your arm and a number of sticky patches will be placed on your scalp, chest, and finger, so that the electrical stimulus can later be given after you are asleep and so that brain waves (EEG), heart waves, (ECG) and body oxygen levels can be monitored. You will then be provided oxygen to breathe by mask, followed by the anaesthetic medication itself.

Within seconds after the injection of the anaesthetic medication, you will be asleep, and the medication to relax your muscles will be given. Within one to three minutes, your muscles will be relaxed. A controlled electrical stimulus, lasting a few seconds, will then be applied across the two patches, which will be placed either on both temples (bilateral ECT) or on the right temple and top of the head (unilateral ECT). The electrical stimulus will trigger a seizure within the brain, which typically lasts around a minute. The muscular response to the seizure is reduced by the muscle relaxant drug given with the anaesthetic, and little body movement occurs.

Within a few minutes after the seizure the anaesthetic wears off, and you will be awake and breathing on your own. Because of the anaesthetic drug and the effects of having had the treatment, you will temporarily feel somewhat groggy. Usually within 15-20 minutes after treatment you will be brought back to your room, where you will be involved in your usual ward activities, and may eat and drink as usual.

## **Is ECT effective?**

Although there have been many advances in the treatment of mental disorders in recent years ECT remains the most effective, fastest and/or safest treatment for many cases. It maybe the treatment of first choice or it maybe given when medications are either not effective or not safe. Your doctor will discuss with you why ECT is being recommended in your case and what alternative treatments may be available. ECT is most effective in major depression, where it has a strong beneficial effect in up to 80% of patients. Still, there is no guarantee that ECT, or, for that matter, any treatment will be effective. In addition while a course of ECT (or an alternative treatment) may bring an episode of illness to an end, it will not in itself prevent another episode from occurring weeks, months, or years later. Because of this situation, you and your doctor will need to consider preventative treatment to follow any ECT that you received. Such preventative treatment generally consists of medication, talking therapy, changes in daily routines, or ECT (given as an outpatient at a much less frequent rate).

## **Is ECT safe?**

Although all treatments may have risks and side effects, there are major risks to have no treatment at all. Prior to ECT you will undergo a careful medical, psychiatric and laboratory evaluation to make sure that the treatments can be administered in the safest, most effective manner possible. Your medications may also be adjusted to minimise the risk and maximise the effectiveness of the treatments. For most patients, the side effects of ECT are relatively minor.

More common side effects involve headache, muscle soreness and nausea. These are usually mild and can be prevented or at least diminished by medications. Congestion in your chest is less common and smoking may be a contributing factor. Serious complications are rare, and may include temporary or permanent heart abnormalities, reactions to the medications used at the times of the treatment, injuries to muscle, bones or other parts of the body, and greatly prolonged seizures or seizures occurring after the treatment. The risk of death is very rare, about one per 10,000 patients, which is the same as the risk for having any anaesthetic.

Confusion and memory problems are of concern to most people having ECT. They may develop over a course of ECT, but begin to disappear as soon as the treatments have stopped. These effects vary considerably from patient to patient, but are usually greater for larger numbers of treatments or when both sides of the head are stimulated (bilateral ECT). However, you should also understand that because of the harmful effects that mental disorders themselves often have on memory function, some patients successfully treated with ECT actually report an improvement in memory. It is advisable to postpone important life decisions until any major negative effects of the Depression or of ECT on memory have worn off (usually within a week or two following completion of the treatment course). The ability to learn and remember new information returns to one's usual level over a period of days to weeks after ECT. The ability to remember material from the past, that is prior to ECT, also tends to return to normal over a similar time period. Some memories from the recent past, during the period of illness and in the treatment phase may be delayed in recovery or even permanently lost.

## **Who will recommend ECT?**

At this hospital, we always ensure that two psychiatrists have given an opinion on the use of ECT prior to commencing the treatment. If you have come to hospital from your local doctor, your treating psychiatrist and another visiting psychiatrist will interview you and consider your illness. If you come to hospital referred by another psychiatrist, the psychiatrist whose care you came into in this hospital will give a second opinion.

## **Other information on ECT?**

Please feel free to ask your doctors or nursing staff any questions you have about ECT. You should understand that ECT is a treatment for which you (or your legal guardian, if applicable) must consent for on a voluntary basis, and that this consent can be withdrawn at your (or your guardian's) request at any time.

## **Information for outpatients**

In certain situations, such as maintenance ECT, treatment may be administered to people who are outpatients. Preparation for treatment includes fasting from midnight. If you are prescribed medication for heart or blood pressure please take your medication at 6 am with a small amount of water. You must arrive at the ward before 8 am unless informed otherwise. Patients having outpatient ECT should not drive or operate machinery on the day of treatment. You will require observation for 4 hours post ECT, as is usual for any day only procedure. After 4 hours a responsible adult or carer may take you home or back to your residential facility.