

## **Appendix I: Electroconvulsive therapy- factsheet**

### **Introduction**

This factsheet will provide you information regarding Electroconvulsive therapy (ECT). It provides information about ECT including: what is ECT? Why is it used? How is it given? What are the risks and benefits involved? This factsheet will also serve a reminder for the information regarding ECT. You can ask for further clarifications and details from your doctor.

### **What is electroconvulsive therapy?**

Electroconvulsive therapy (ECT) is a procedure in which the brief application of an electric stimulus is used to produce a generalised seizure for the treatment of certain psychiatric disorders. The procedure is painless because the patient is asleep under general anaesthesia.

### **Who is treated with ECT?**

ECT has been used for over 65 years. It is usually given when people have severe depressive illness, mania, or some forms of schizophrenia. ECT is recommended when patients have severe life-threatening or incapacitating psychiatric problems, such as suicidal tendencies or is in a state of stupor. It is also given under the following circumstances: (i) when patients have not responded to other treatments, (ii) when patients are unable to tolerate the adverse effects of medications, (iii) when patients have responded well to ECT in the past, or (iv) when psychiatric or medical considerations make it particularly important that patients recover quickly and completely. If you continue to have any doubts about why ECT is recommended for you, you should not hesitate to ask your doctor.

### **How does ECT work?**

The exact process that underlies the effectiveness of ECT is not clearly known. It is known that the efficacy of ECT depends on producing a seizure in the brain. This seizure acts all over the brain including the centres which control thought, mood, sleep and appetite. Most investigators believe that changes in brain chemistry produced by ECT are the key to restore normal function. Considerable research is being conducted to find out the exact biochemical processes.

### **Who administers ECT?**

A treatment team consisting of psychiatrists, an anaesthesiologist, and several nurses administers ECT. ECT is administered in a dedicated suite which includes a waiting area, a treatment room, and a recovery room.

### **How is ECT given?**

Before ECT is administered, your medical condition will be carefully assessed. This will include a medical history, complete physical examination, and medical investigations as needed. The treatments are usually given two times a week in the mornings on Monday and Thursday. Before each treatment, you should not eat or drink anything after midnight. It is better to wearing loose clothes and to remove metallic ornaments, hairpins and dentures.

In the waiting hall, you will be provided an injection (Inj Atropine 0.5 ml) to prepare you for the anaesthetic procedure. After you enter into the ECT treatment room, an intravenous line will be started. Sensors for recording the EEG (electroencephalogram), a measure of brain activity, will be placed on your head. Another sensor is placed on your finger or toe to record the pulse and the oxygen saturation in your blood. A cuff will be wrapped around your arm for monitoring blood pressure. You will be provided a facial mask delivering oxygen to breathe. When everything is connected and in order, an anaesthetic medication (usually thiopentone sodium) will be injected through the intravenous line that will make you fall asleep. After you sleep, a muscle relaxing medication (usually succinyl choline) will be injected to minimise contractions of muscles during the seizure. When you are completely asleep and your muscles are well relaxed, a brief electrical charge will be applied through two electrodes placed on the scalp. This will stimulate the brain and produce a seizure, which lasts for less than a minute. You will not feel the convulsion because of the anaesthesia and won't have muscle spasm or move because of the muscle relaxant. You will continue to receive oxygen through the mask until you resume breathing on your own. When the treatment is completed, you will be taken to the recovery room for monitoring by trained staff. Usually when you awake, you will find yourself in the recovery room, from where you can leave when you are fully awake. You can have your breakfast then and can resume your daily activities.

### **How many treatments are needed?**

ECT is given as a course of treatments. The exact number needed to successfully treat varies from patient to patient. It typically ranges from 6 to 12 treatments, but some patients may require fewer and some patients may require more treatments. The number of treatments, therefore, depends on the nature of the illness and the patient's response to treatment.

### **Is ECT curative?**

ECT is effective in providing relief from psychiatric symptoms. You will be better equipped to face your life problems after such resolution of psychiatric symptoms. However, permanent cures for psychiatric illness are rare, regardless of the treatment given. To prevent relapse after ECT, most patients require further treatment with medications. Appropriate counselling or other psychosocial interventions may also be needed.

### **How safe is ECT?**

Like any operation involving anaesthesia, ECT carries a small degree of risk. ECT appears to have less risk of death or serious medical complications than other medical or surgical interventions involving general anaesthesia. It is estimated that death associated with ECT occurs in 1 of 50,000 patients. This rate may be higher in patients with severe medical conditions, especially in patients with heart diseases. Even if you have heart disease, you can safely undergo ECT with additional cardiac monitoring. If there are more concerns, your doctor will usually seek the expert opinion of a cardiologist or other specialists. Due to this safety record, ECT is often recommended to treat psychiatric

disorders in patients with serious medical conditions. With modern anaesthesia, fractures and dental complications are rare.

### **Does ECT cause brain damage?**

The available scientific evidence speaks against this possibility. In adults, seizures must continue for hours before brain damage can occur; yet the ECT seizure lasts only about one minute. Brain scans after ECT have so far shown no injury to the brain. Moreover, the amount of electricity that reaches the brain during ECT is too small to cause any electrical injury.

### **What are the possible benefits with ECT?**

ECT is an effective short-term treatment for depression, and is probably more effective than any medication. ECT may help you start recovering faster than any medication. Some patients who have responded to ECT report that it makes them feel “like themselves again” or “as if life was worth living again”. Severely depressed patients may become more optimistic and less suicidal. Many patients recover their ability to work and lead a productive life after their depression has been treated with a course of ECT. Such strong evidence for the efficacy of ECT over other psychiatric disorders is being accumulated. Many psychiatric illnesses result in impairments of attention and concentration. Consequently, when the psychiatric symptoms improve, many patients show improved scores on tests of intelligence, attention, and learning, shortly after ECT.

### **What are the common side effects of ECT?**

You may experience some confusion on awakening following the treatment. The confusion usually clears within a few hours. You may develop a headache, which will usually improve with pain relievers. Other side effects, such as nausea and vomiting, last for a few hours at most and are relatively uncommon. The side effect that has received the most attention is memory loss which is found to affect about one-third of all those who receive ECT. ECT may cause two types of memory loss. The first involves rapid forgetting of new information. For example, shortly after the treatment, you may have difficulty remembering recent conversations or things you have recently read. The second type of memory loss concerns events from the past. Some patients may develop gaps in their memory for events that occurred in the past. As with any treatment, patients differ in the extent to which they experience side effects, and more extensive memory loss has been reported. You will be checked by your doctor for signs of side effects of the treatment between or before each new session of ECT. In most cases this memory loss goes away on its own within a few days or weeks after the completion of course of ECT. However, some patients continue to experience memory problems for several months or occasionally longer.

### **What is the informed consent procedure for ECT?**

There is almost always more than one treatment option to help you; your doctor will discuss them and their risks and benefits with you. You will be provided the opportunity to make your own choice. If you choose to receive ECT, your doctor will ask you to sign a consent form. When you sign that form, you express your willingness to undergo ECT. You have the right to ask your doctor any number of questions to clarify your doubts regarding ECT. You have also the right to refuse it. Even if you provide your consent to

receive ECT, you can withdraw your consent at any point of time before or during your treatment. The consent form is not a legal document and once you sign, you will not be bound to accept any specified number of treatments. This form is only a record that you have been provided information about ECT and a choice to choose your treatment. Even if you refuse to consent or withdraw your consent later, it will not cause any loss of benefits or of care that would have been normally provided to you.

*Please feel free to ask questions and clarify your doubts and fears!*

## **Appendix II: Checklist for informed consent for electroconvulsive therapy**

**Name:**

**Hospital No:**

1. Has basic information on ECT been discussed with patient? (i) yes (ii) no
2. Has the factsheet on ECT been given to patient? (i) yes (ii) no
3. Have the patient's doubts, fears and misconceptions been clarified? (i) yes (ii) no
4. Does the patient have a reasonable understanding of information about the illness and the recommended treatment? (i) yes (ii) no
5. Does the patient have a reasonable understanding about the potential risks and benefits of the choice? (i) yes (ii) no
6. Does the patient have a reasonable appreciation of the nature of the situation and the consequences of the choice? (i) yes (ii) no
7. Has the patient expressed ECT as the choice of treatment? (i) yes (ii) no
8. Is the patient competent to decide on ECT as the treatment? (i) yes (ii) no
9. State reasons if psychiatrist doubts the patient's competence to decide:  
(i)  
  
(ii)  
  
(iii)
10. Has written consent been obtained from the patient? (i) yes (ii) no

### **Obtaining consent from a relative if the patient is not competent to decide:**

11. Has basic information on ECT been discussed with the relative? (i) yes (ii) no
12. Has the factsheet on ECT been given to the relative? (i) yes (ii) no
13. Have the relative's doubts, fears and misconceptions been clarified? (i) yes (ii) no
14. Does the relative have a reasonable understanding of information about the illness and the recommended treatment? (i) yes (ii) no
15. Does the relative have a reasonable understanding about the potential risks and benefits of their choice? (i) yes (ii) no
16. Does the relative have a reasonable appreciation of the nature of the situation and the consequences of their choices? (i) yes (ii) no
17. Has the relative expressed ECT as the choice of treatment? (i) yes (ii) no
18. Has written consent been obtained from the relative? (i) yes (ii) no

**Name of psychiatrist:**

**Signature:**

**Date:**

19. Has consent for ECT been obtained from patient (to be obtained after 4-5 ECTs, if the patient did not give consent at start of treatment)? (i) yes (ii) no

**Name of psychiatrist:**

**Signature:**

**Date:**

**Name of consultant who audited the procedure:**

**Signature:**

**Date:**