

Repetitive Transcranial Magnetic Stimulation (rTMS)

What are the risks involved?

- ◆ According to published studies of rTMS to date, the following side effects were reported: pain and headache, twitches in the face muscle, effects on mood and cognition (mental function), temporary changes in hormones and transient hearing loss, but there have been no reports of lasting consequences. The most frequent side effect observed was headache, which responds well to pain medication. Muscle twitches in the face may occur, but only during stimulation. rTMS does not affect memory and orientation. In extremely rare cases and mostly in early studies, seizures have been reported. The doctor may withdraw you from the rTMS treatment if he or she feels this is in your best interest.

What happens after the treatment?

- ◆ Treatments do not have an immediate effect. Do not be worried if you do not feel better after the first few treatments. Discuss your progress with your doctor.

What are the benefits of the treatment?

- ◆ Potential recovery from the symptoms of the illness rTMS was prescribed for. As with many forms of medical treatment, not all patients respond equally well. Some recover quickly; others seem to recover but then symptoms recur requiring further treatments; and others may not respond at all to the treatment.
- ◆ rTMS has proven to be a safe and effective treatment for some illnesses.

What if I do not want to have rTMS?

- ◆ If you do not wish to have rTMS there are other treatments available for your symptoms that may include other drug treatments and psychotherapy. Your doctor can explain the other treatments to you.

- ◆ Your doctor has recommended Repetitive Transcranial Magnetic Stimulation (rTMS) as the most effective treatment for you at this time.
- ◆ This booklet provides answers to some of the questions you may have about rTMS when deciding your consent to the treatment.
- ◆ It is important for you to fully understand what is involved with rTMS. Ask your doctor or nurse if you require further information.

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Repetitive Transcranial Magnetic Stimulation (rTMS)

rTMS is a new technology for brain stimulation and holds promise as a treatment of a number of psychiatric disorders. Previous studies have shown that rTMS can improve mood and decrease sadness in patients with depression and it may be helpful in a number of other conditions.

rTMS is a noninvasive technique, which causes very little discomfort for most people and has few side effects. Before you decide to have rTMS it is important for you to understand what will be involved and the possible risks, benefits and discomforts. Please take the time to read this information carefully and if you wish, discuss it with your family doctor, friends or family. The principal of magnetic stimulation involves the induction of a magnetic field by electricity going through a coil. This magnetic field will produce stimulation in your brain and neurons.

rTMS treatment

How many treatments would I have to have?

- ◆ Your doctor will determine the number of treatments you require according to the degree of improvement of your illness.
- ◆ If you decide to have rTMS, you are still free to stop treatment at any time without providing a reason. If you decide not to have rTMS the standard of care you receive will not be affected.

What happens before the first treatment?

- ◆ A physical exam will be completed.
- ◆ rTMS staff will review a checklist of possible exclusion criteria with you. For example, persons who have had a seizure, stroke or head injury or have metal in their head (outside of

your mouth), such as shrapnel, surgical clips or fragments from welding or metal work or cardiac pacemakers, medical pumps or intracardiac lines may be excluded from having rTMS.

Where and when are treatments given?

- ◆ Treatments are given by trained professionals at Mental Health Services in the rTMS Clinic on the second floor of the Admissions Building.
- ◆ Treatments are usually given Monday to Friday and are arranged with the rTMS clinic.

What happens during a treatment?

- ◆ The rTMS procedure involves the application of a rTMS coil to your skull. The brain will be stimulated when a coil is held on your head while sitting in a reclining chair.
- ◆ Before each session your resting motor threshold will be determined (standard procedure). This will be determined using a single pulse of rTMS. You may feel your thumb twitch when the magnetic stimulator delivers the stimulus.
- ◆ You will wear foam earplugs during the procedure to prevent any hearing damage that might result from the loud clicking noise produced by the stimulator.
- ◆ During this treatment, the treatment team will evaluate your mood and other psychiatric symptoms using some standard rating scales.
- ◆ Your blood pressure and pulse will be taken prior to and after each treatment.

How long will a treatment last?

- ◆ An actual individual treatment last approximately 20 to 30 minutes.

Will it be painful?

- ◆ During each rTMS session you will be encouraged to report any discomfort you may experience. If at any time you let the clinician know you are uncomfortable the intensity level will be turned down immediately.