

Purpose: Repetitive Transcranial Magnetic Stimulation (rTMS) is a therapeutic medical procedure approved by Health Canada in 2002 for the treatment of psychiatric disorders, such as major depression. rTMS is a non-invasive treatment which uses a specifically designed magnetic coil to apply stimulation to target areas in the brain. The treatment utilises powerful focused magnetic field pulses to stimulate the neurons in the brain.

The goals for rTMS are to:

- Reduce symptoms of depression
- Improved mood and ability to manage daily activities
- Maintain treatment in community and avoid inpatient admission

Standard treatment duration: Patients need to attend 30 sessions over a course of 6 weeks (daily sessions from Monday to Friday). Patients cannot miss more three consecutive sessions or 6 sessions over course of treatment.

Mandate of rTMS Clinic:

Patients admitted to the clinic fit the following criteria:

- Adult 18 years and over with a major depressive disorder with history of poor response or intolerance to medications.
- Failed to respond with a least two trials of antidepressant medications or those who have an intolerance to at least two trials of medication.
- Able to attend daily treatment sessions over a 6 week period
- Outpatient follow-up required; rTMS clinic cannot take over care of patients

Factors that **would exclude** persons from receiving rTMS:

- Substance abuse disorder (including cannabis, cocaine or crystal methamphetamine) within the last 3 months prior to initiation of rTMS treatment.
- Active alcohol use disorder – must be able to abstain from using alcohol for 3 month prior to initiation of treatment and abstain throughout duration of treatment.
- History of epilepsy
- Presence of ferromagnetic material anywhere in the head, excluding the mouth. Patients with a Cochlear implant could not receive rTMS. A removable hearing aid would not exclude a patient.

Factors which **may exclude** persons from receiving rTMS:

- Neurological conditions such as stroke, Huntington’s disease, etc
- Current suicidality
- Personality Disorder causing greater impairment than depressive episodes
- Psychosis, schizophrenia, schizoaffective disorder or depression with psychotic features
- Significant reaction to rTMS or poor response to it previously
- Unstable medical or neurological conditions. I.e. history of spinal surgery, frequent or severe headaches or intracranial pressure
- Pregnancy or intent to become pregnant in a short time
- Failure to respond to ECT in the current episode

- Persons taking Benzodiazepines may need to discontinue med for at least 6 weeks prior to initiation of rTMS treatment.
- Persons taking sleep medications (Zopiclone, Zolpidem) may need to discontinue for at least 6 weeks prior to initiation of rTMS treatment.

Factors which ***may delay or reduce the effectiveness*** of treatment:

- Persons currently taking anti-seizure medication may be required to reduce or discontinue their dose

Triage:

1. rTMS is currently provided on an outpatient basis at two sites: RGH and FMC.
2. Referrals will come from physicians. Please complete attached referral form and fax/Rightfax to the RGH Clinic 403-592-4276 **or via Connect Care rTMS CAT department**. Referrals will be triaged at RGH rTMS Clinic. Incomplete referrals will be returned.
3. Referrals will be reviewed by RGH nursing staff for appropriateness before initial appointment set up at RGH or FMC. Referrals will be distributed based on demand and client preference. Admin (at each site) will call patient for initial appointment.



**Addiction and Mental Health
Calgary Zone: Outpatient rTMS Clinic**