

TMS TRENDS

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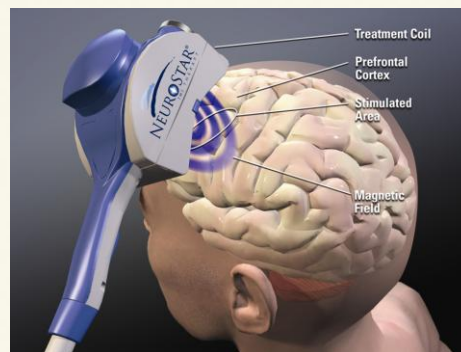
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DETERMINING CANDIDACY FOR TMS

TMS Therapy is an appropriate treatment option for adult patients with Major Depressive Disorder who have failed to achieve satisfactory improvement from one prior antidepressant medication at or above the minimal effective dose and duration in the current episode. Patients who do not fit this description may still benefit from TMS Therapy, but treatment efficacy may be unknown. TMS Therapy may also be a good alternative for patients who are unable to tolerate the side effects of traditional antidepressants or whose employers do not permit them to be taking psychiatric medications, e.g. commercial airline pilots.

To identify patients who are most likely to benefit from TMS Therapy, we perform a thorough psychiatric evaluation and systematic review of prior antidepressant treatment history, including the adequacy of each treatment attempt, to evaluate the treatment resistance status of a given patient. When possible, we will confer with the individual's treating therapist/psychiatrist and review any relevant past medical records and ongoing issues.

Not every patient is a candidate for TMS Therapy. With the exception of dental fillings, TMS is contraindicated for use in patients with implanted metallic devices or non-removable metallic objects in or around the head (e.g. cochlear implants, aneurysm clips, stents, and bullet fragments). In addition, TMS Therapy should not be used in patients with implants controlled by physiological signals such as pacemakers, implantable cardioverter defibrillators (ICDs), and vagus nerve stimulators (VNS). Patients with a history of seizure should also be cautious in pursuing TMS Therapy.



THERAPEUTIC NEUROMODULATION

Therapeutic neuromodulation utilizes the delivery of electrical current to neural tissue for the treatment of major depression, and other psychiatric disorders. Current modalities include electroconvulsive therapy (ECT), vagus nerve stimulation (VNS), transcranial magnetic stimulation (TMS), and deep-brain stimulation (DBS).

Each of these modalities has a role in treating individuals who have been resistant to medication. For example, ECT may be a first-line treatment for patients with major depression with psychosis, catatonia, or who are at high risk of suicide. VNS, approved in 2005 by the FDA, involves implantation of a stimulator to send electric impulses to the left vagus nerve.

TMS Therapy possesses several unique clinical advantages. Non-adherence issues are significantly reduced with TMS Therapy, as the patient is not directly responsible for delivering the treatment. Similarly, because TMS is psychiatrist-controlled, issues of under-dosing, inadequate duration of treatment, and drug interactions are significantly mitigated. Perhaps most importantly, TMS Therapy is non-systemic and non-invasive, thus significantly lowering the incidence of side effects. For all these reasons, TMS is an effective, safe, and tolerable treatment option for depression.