

ISRCTN17144095 — Plain English summary of results (interim)

Status: trial ongoing (interim analysis). This summary describes early, preliminary findings from part of the planned sample, not the final results.

This is an early look at data from an ongoing clinical trial testing deep transcranial magnetic stimulation (dTMS) for obsessive-compulsive disorder (OCD) that has not responded well to standard treatment. Participants are randomly assigned, in a 4-to-1 ratio, to receive either real (active) dTMS or a sham (inactive, placebo-like) version of the treatment, so the two groups can be fairly compared.

So far, 44 of the planned 75 participants have joined the study (35 assigned to active treatment, 9 to sham). Of these, 39 also had usable brain scans (MRI) taken before and after treatment, which let us look at how the treatment affected brain activity.

Looking at symptoms: 43.8% who received active treatment improved enough to be classed as “responders,” compared with none of the people who received the sham treatment.

Looking at the brain scans: in people who responded well to treatment, connections between a deep brain region called the striatum and parts of the frontal brain became weaker after treatment. In people who did not respond, these same connections became stronger. This particular brain-connection measurement is one of several planned brain-based measurements in this study; other measurements (including detailed brain-structure scans) are still being analysed and will be reported separately.

These are early findings from part of the study only, and will need to be confirmed once all 75 participants have completed the trial. A small number of participants left the study early, due to a cold, alcohol misuse, or worsening of symptoms; no serious safety concerns were identified. Final results will be posted to this registry once the trial is complete.