

Transcranial Magnetic Stimulation (TMS)

This technology was funded through the New Technology Funding and Evaluation Program (NTFEP). The NTFEP funds the introduction and evaluation of new technologies that:

- ✓ Are safe and effective
- ✓ Provide better health outcomes
- ✓ Provide value for money
- ✓ Provide greater access to care.

The evaluation findings will inform recommendations regarding the future use and/or investment of the technology within Queensland.



What is the technology?

In Australia, TMS is approved for treatment of Major Depressive Disorder in adult patients who have failed to achieve satisfactory improvement from at least two prior antidepressant medications at or above the minimal effective dose and duration in the current episode. TMS involves applying brief pulses of magnetic energy to a specified area of the brain to modulate the activity of underlying brain cells. In a usual course of treatment, a patient will have 20 sessions of TMS over 4 weeks. Previously, the other treatment option for patients was to undergo Electroconvulsive Therapy (ECT).

What were the evaluation findings?



30-40% patients that have TMS achieve a complete resolution of Depression.



Patients response rate to TMS has been greater than expected with 50-60% of patients achieving a good response.



Compared to ECT which is performed in an operating theatre, TMS is delivered in an out-patient setting.



Since TMS has been available, the number of patients undergoing ECT has reduced.



TMS is preferred over ECT by patients due to its minimal side effects, higher tolerability and potential to significantly improve their quality of life.



A number of patients with Depression who would have resorted to ECT after other treatments failed, can benefit from TMS.

Where was it evaluated?

Metro South Addiction and Mental Health Services (Completed in 2018)

Funding provided

\$398,854

Want more information?

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