# Repetitive Transcranial Magnetic Stimulation for the treatment of resistant depression. Results from the treatment cohort attending The London Psychiatry Centre.

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#### **BACKGROUND**

Treatment resistant depression is a major health problem in western societies. It is estimated that about half of those diagnosed with the disorder will not reach remission with antidepressant medication. Repetitive Transcranial Magnetic Stimulation (rTMS) is gradually becoming recognised as a valuable therapeutic option in treatment resistant depression. rTMS is approved and licensed in North America and Europe. In the UK the MHRA licensed rTMS for depression not satisfactorily responding to 2 antidepressants, whilst NICE recommends it as a treatment option for depression as a whole regardless of response failure or severity.

There are different protocols available within the TLPC but a typical treatment course consists of five sessions per week over 3-6 weeks period. Each treatment session lasts approximately 30 minutes. During the treatment, the patient is fully awake and sedation is not required.

This abstract reports the clinical outcomes of rTMS offered in the first in the UK clinical centre offering rTMS.



# **METHODS**

One hundred and fifty one people with treatment resistant depression have completed the acute stage of treatment, from 2013 till December 2016. Patients have completed Beck Depression (BDI-II) and Anxiety Inventories (BAI) at baseline, thereafter weekly and the end of their treatment course.





For more information about the London Psychiatry Centre and rTMS please visit: <a href="www.psychiatrycentre.co.uk">www.psychiatrycentre.co.uk</a>; or email Info@PsychiatryCentre.co.uk or email CK on

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#### **RESULTS**

The mean age was 41 years (18-77). Ninety five patients (61%) have reached remission, as defined by a score of 12 and below of BDI-II at the end of treatment course; 6 (4%) improved by 50% and another 3 (2%) by 75%. Therefore 104 patients responded (69%). Forty eight patients (32%) did not respond.

|                      | Total No of | Responder (no | Responder (%) | No Responder | No Responder (%) |
|----------------------|-------------|---------------|---------------|--------------|------------------|
|                      | Patie nts   | of pts)       |               | (no of pts)  |                  |
| Total No             |             | 103           | 68%           | 48           | 32%              |
| Sex                  |             |               |               |              |                  |
| Male                 | 61          | 46            | 75%           | 15           | 25%              |
| Female               | 90          | 57            | 63%           | 33           | 37%              |
| Employment Status    |             |               |               |              |                  |
| No Working           | 88          | 55            | 63%           | 33           | 38%              |
| Working              | 59          | 45            | 76%           | 14           | 24%              |
| N/A                  | 4           | 3             | 75%           | 1            | 25%              |
| Marital Status       |             |               |               |              |                  |
| Married              | 53          | 35            | 66%           | 18           | 34%              |
| Single               | 79          | 51            | 65%           | 28           | 35%              |
| Partner              | 6           | 5             | 83%           | 1            | 17%              |
| Divorced             | 11          | 10            | 91%           | 1            | 9%               |
| N/A                  | 1           | 1             | 100%          | 0            | 0%               |
| Treatment Resistance |             |               |               |              |                  |
| Treatment Resistant  | 122         | 82            | 67%           | 40           | 33%              |
| Not Treatment        | 29          | 21            | 72%           | 8            | 28%              |
| Resistant            |             |               |               |              |                  |

## CONCLUSION

Our treatment outcome continue to be above 60% <sup>1</sup>. This is higher than those reported for antidepressant medication and achieved faster (within 6 weeks rather than 12 weeks) <sup>2</sup>. and outcomes reported by other rTMS treatment centres. At the moment several hypotheses have been considered and explored that might provide an explanation, such as levels of nurse support, frequency of frequency re-measuring, patients' interaction during session.

The above results suggest that male patient had a higher response rate than women (which is the reverse of our earlier report <sup>1</sup>, those divorced or living with their partners, as well as those without a history of treatment resistance.

## REFERENCES

- 1 Euba R, Panihhidina I, Zamar A. 2015. Treatment-resistant depression: experience of the first repetitive transcranial magnetic stimulation clinic in the UK. Future Neurology, 10(3), 211-215.
- 2 STAR D trial: Sequenced Treatment Alternatives to Relieve Depression (STAR\*D) Study, NIMH website.