rTMS and COVID-19
Repetitive transcranial magnetic stimulation (rTMS) is a safe and effective therapy for depression. The Royal Australian and New Zealand College of Psychiatrists' (RANZCP) Section of ECT and Neurostimulation has developed the following information on considerations and precautions for the delivery of rTMS in relation to COVID-19 and the current situation. This information will be reviewed and updated as necessary in response to the changing situation.

Should rTMS continue to be given?
rTMS forms an increasingly important part of the range of treatment options for patients struggling with depressive disorders. As such it is important to act to maximise the likelihood of the continuation of clinical programs providing rTMS treatment. However, rTMS requires relatively close contact between patients, doctors and the clinical staff administering treatment. The following aims to provide information on how best to manage risks associated with the ongoing provision of rTMS therapy.

Each hospital and health system provider is likely to have its own prioritisation and guidance for service continuity, and decisions may have already have been made about rTMS in line with local policies. Given the pandemic situation, there likely to be a preference to minimise people going in and out of the hospital environment, even if the incidence of COVID-19 remains low. The clinical decision about whether to proceed with rTMS should take into account local policies, with a plan to minimise, postpone, or cancel rTMS procedures based on carefully considering the individual needs of each patient.

It is suggested that, in the event of a low incidence COVID-19, rTMS procedures would return to being delivered in line with pre-COVID procedures. However, it is prudent to maintain appropriate physical distancing and hygiene protocols in line with this information where possible.

In delivering rTMS treatments, it is important to follow the latest Department of Health (Australia) and Ministry of Health (New Zealand) advice as well as organisation protocols with regards to patient and staff health and safety. The following considerations are listed as a guide.

Treatment-related procedures

1. Prior to commencement of an rTMS course, all rTMS patients should be screened for COVID-19 risk – refer to local guidelines and protocols for screening questions required. The referring doctor should make an assessment of the risk or likelihood of COVID-19 infection. Patients attending for outpatient therapy need to be consistently screened each day prior to attending the
clinical program. Patients should be screened for the presence of acute respiratory symptoms and risk of exposure to COVID-19 infection. Screening can occur at the point of attendance but ideally will occur prior to a patient presenting in person at the rTMS service. This could be done on the phone or through text messaging. If it is done remotely, ideally screening should be repeated when the patient presents to the clinic. Patients who are screened as positive for these factors should be directed for appropriate medical care and assessment prior to the progression of rTMS therapy. Their treating psychiatrist should be informed of the possible interruption to care.

2. Consider checking the patient’s temperature on presentation as a part of the overall screening process.

3. Staff working in the delivery of rTMS must follow organisation protocols with regards to fitness to work in respect to COVID pandemic, COVID screening and PPE.

4. Patients and staff should be asked to use hand sanitiser on entering the TMS clinic and staff should use hand sanitiser between each patient and when transitioning between patient contact and administration tasks.

5. Scheduling of patients should be structured to limit interaction in clinical and waiting areas. Patients can be asked to present only a short time before their treatment and a sufficient gap left between treatments to ensure that there is no or minimal overlap.

6. Wherever possible maintain maximal room ventilation – leaving a window open or air-conditioned running with 100% external air circulation.

7. Maximise the distance between the treating clinician and patient and use alternative methods of monitoring during the procedure where appropriate.

8. If possible, position the treatment chair so the patient is facing away or side on to the clinician entry point or desk (noting the need to still maintain visual monitoring).

9. Telehealth methods can be used for patient assessment prior to therapy (including for assessment of patients for prioritisation, postponing or cancelling rTMS) and for post-treatment follow-up.

10. Careful cleaning of rTMS and other equipment and work surfaces in the treatment room should take place between patients with hospital grade disinfectant wipes or other appropriate means.

11. rTMS is not an aerosol producing procedure and as such is not considered in the category of procedures for which masks and personal protective equipment are necessary. However, these may provide considerable reassurance to both patients and staff and would be reasonable to use if available. Care should be taken to ensure the use of masks does not produce complacency and detract from more critical procedures to reduce risk, especially hand washing. Advice issued by the Department of Health in Australia on the use of PPE equipment in hospitals during the COVID-19 outbreak and Ministry of Health in New Zealand guidance on the use of PPE in healthcare should be followed along with local guidelines.
Treatment interruption

Whether through the necessity for self-isolation, illness or service interruption, it is likely that there will be a number of rTMS patients who experience substantive interruption to course of treatment. Unfortunately, there is minimal research data that addresses how substantial interruptions to courses of therapy should be addressed. One study has demonstrated that rTMS administered three times per week is likely to have similar benefits to that administered five times per week but no studies have addressed prolonged interruption.

Clinical observation suggests that appropriate response to interruption therapy is significantly dependent on how far a patient had progressed through treatment to begin with, the degree of improvement to date, the severity of the patient’s illness and the duration of the interruption. The supervising rTMS psychiatrist should take these factors into account when deciding whether the treatment course should be resumed, or aborted (with the option of a new course commenced later). There may be circumstances under which more than one treatment a day may clinically appropriate, provided that rTMS practice follows protocols derived from and proven effective by substantive clinical trials. If rTMS is prescribed in a manner that varies from standard rTMS treatment this should be clearly documented.

Each service may wish to develop its own guidelines on how to manage an rTMS course in the event of disruption to treatment. The management of each patient should be determined by consideration of all individual factors. The below table provides an example:

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<th>Timing of interruption</th>
<th>Duration of interruption</th>
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<tbody>
<tr>
<td>Less than 10 sessions</td>
<td>Less than 10 days</td>
<td>Continue current treatment course</td>
</tr>
<tr>
<td></td>
<td>More than 10 days</td>
<td>Commence new treatment course</td>
</tr>
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<td>Between 10 and 20</td>
<td>Less than 20 days</td>
<td>Continue current treatment course</td>
</tr>
<tr>
<td>sessions</td>
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<tr>
<td>More than 20 sessions</td>
<td>Less than 10 days</td>
<td>Complete course of treatment if still symptomatic</td>
</tr>
<tr>
<td></td>
<td>More than 10 days</td>
<td>Complete 10 more treatment sessions if patient still symptomatic</td>
</tr>
</tbody>
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Table 1: example of management of rTMS course in the event of disruption to treatment.

Interruption to maintenance therapy

If there is a substantial interruption to the course of a patient’s maintenance treatment, especially if maintenance cannot be continued, there should be a thorough re-evaluation of alternative treatment options to minimise the likelihood of relapse. Optimising pharmacotherapy, including the addition of lithium to an ongoing antidepressant medication and engagement in mindfulness based cognitive behavioural therapy (CBT) are both likely to be effective in reducing the frequency of depressive
relapse. Support for engagement in mindfulness using online resources or provision of mindfulness-based CBT through telehealth avenues should be considered.

A risk-benefit analysis is necessary to for the need of maintenance TMS, particularly in the ongoing pandemic and when a patient is doing well clinically. Where appropriate, suspension of maintenance treatment and more frequent monitoring and medication change is strongly suggested limiting unnecessary clinical contact.

rTMS Resource

RANZCP guidelines on the administration of rTMS (November 2018)

Disclaimer

This information is intended to provide general guidance to practitioners, and should not be relied on as a substitute for proper assessment with respect to the merits of each case and the needs of the patient. The RANZCP endeavours to ensure that information is accurate and current at the time of preparation, but takes no responsibility for matters arising from changed circumstances, information or material that may have become subsequently available.

REVISION RECORD

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