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RACP Foundation Research Awards

FINAL REPORT

Project / Program Title		Clinical Efficacy of Pharmacotherapy in Traumatic Brain Injury Rehabilitation
Name		Dr Pearl Chung
Award Received		2016 AFRM Education Development Grant
Report Date		10 January 2017
Chief Investigator / Supervisor		
Administering Institution		The University of Melbourne
Funding Period	Start Date:	13 June 2016
	Finish Date:	31 December 2016

PROJECT SUMMARY

The aim of the project was to develop the research project at Royal Rehab using practice based-evidence for medications which are used in traumatic brain injury in Australia. The project consisted of multiple components which was to (1) review the literature; (2) select medications for study; (3) select outcome measures for the study; (4) incorporate the International Classification of Functioning, Disability and Health into treatment goals; (5) prepare the database and the forms for the study; and (6) facilitate knowledge transfer in the above processes. The project a/so allowed further funding to be sought for the study itself to be conducted in the subsequent 2-3 years.

The study was conducted over 6 months in 2016. During the study period, I found that numerous literature reviews including systematic reviews have already been conducted for a range of pharmacological agents in traumatic brain injury rehabilitation. These medications are used for a range of cognitive, behavioural, psychological, autonomic and physical impairments. However, there was a lack of clarity in case descriptions (of patients and their injuries) and the clinical relevance of the outcome measures which were used. It was not clear whether reported changes were clinically significant, and whether the absences of changes were due to poorly responsive outcome measures. It seemed unlikely that further evidence reviews would contribute to new knowledge or lead to a change in clinical practice given these problems. The study resulted in the design of two studies which arose from this project. The first study will conduct consensus meetings to allow clinically relevant and accurate parameters and data labels to be created. The second study will involve serial testing of cognition, behaviour, and sleep to establish a natural recovery trajectory. Both studies will be completed in 2017 with the secured funding. Further funding will be sought in 2018-2019 to continue with the pharmacological efficacy testing.

PROJECT AIMS / OBJECTIVES

The project aim was to develop the research project at Royal Rehab as outlined above.

This was achieved with two full projects under way in 2017 with secured funds. It would not have been possible to have made this progress without the funding.

SIGNIFICANCE AND OUTCOMES

The study provided me with an opportunity to reflect on the problems which limit evidence generation and research translation. It was noted that methodological limitations in the primary studies continued to limit the usefulness of the studies in systematic reviews. This is a recurrent problem in rehabilitation research where we are yet to establish a systematic approach to measuring functioning in a way which is responsive to change and has direct clinical relevance. It is anticipated that the projects arising from this study will have overcome these issues through improved methodology including consensus meetings to define what a relevant and clinically significant change is.

PUBLICATIONS / PRESENTATIONS

The study was presented at the NSW Brain Injury Rehabilitation Program Meeting in November 2016 in an oral presentation. This presentation is being prepared for peer-reviewed journal publication and will acknowledge the contributions of this grant. During the grant period, I also had the opportunity to work with Dr Clayton King on quality indicators for brain injury rehabilitation which was presented by Dr King at the RMSANZ Conference in October 2016