

Treatment for people with chronic aphasia – Investigation of high and low intensity, constraint and multimodal treatments

Pierce John E^{1,2}, Foster Abby², Hurley Melanie², O'Halloran Robyn², Rose Miranda², Nickels Lyndsey³, Togher Leanne⁴, Meinzer Marcus⁵, Copland David⁵, Rai Tapan⁶, Godecke Erin⁷, Joosup Kim⁸ and Cadilhac Dominique⁸

¹*Cabrini Health, Langwarrin, VIC, Australia*

²*La Trobe University, Melbourne, VIC, Australia*

³*Cognitive Science, Macquarie University, Sydney, NSW, Australia*

⁴*The University of Sydney, Sydney, NSW, Australia*

⁵*UQ Centre for Clinical Research, University of Queensland, Brisbane, QLD, Australia*

⁶*School of Mathematical and Physical Sciences, University of Technology, Sydney, NSW, Australia*

⁷*School of Psychology and Social Sciences, Edith Cowan University, Joondalup, WA, Australia*

⁸*Faculty of Medicine, Nursing & Health Sciences, Monash University, Clayton, VIC, Australia*

Background and Aims: Aphasia is a frequent occurrence after stroke and results in a higher disease burden compared to stroke without aphasia. While there is evidence for the overall effectiveness of aphasia therapy, questions remain for treatment of people with chronic aphasia (>6 months). One important question is the impact of treatment intensity in chronic aphasia. How frequently should aphasia therapy be provided to maximise effectiveness? Neuroplasticity principles suggest higher intensity should be superior, while learning theory suggests more distributed practice is ideal.

Methods: A systematic review of research relating to intensity in chronic aphasia was undertaken. In addition, the effect of intensity within Constraint Induced Aphasia Therapy (CIAT) and Multi-modal treatments was investigated using meta-analysis.

Results: There is very limited high-level evidence supporting higher or lower intensity in chronic aphasia treatment. For CIAT and Multi-modal treatments, there is no clear relationship between intensity and treatment effect sizes. The COMPARE trial and its nested sub-study are currently underway and will compare CIAT and Multi-Modal Aphasia Therapy at two different treatment schedules.

Conclusion: Clinicians have limited guidance for determining treatment intensity in chronic aphasia. COMPARE will contribute much needed high-quality data to this important question.