



# The science

## behind Constant Therapy

### FEATURED RESEARCH

#### Detecting small & large fluctuations in language and cognitive performance: A longitudinal rehabilitation case study

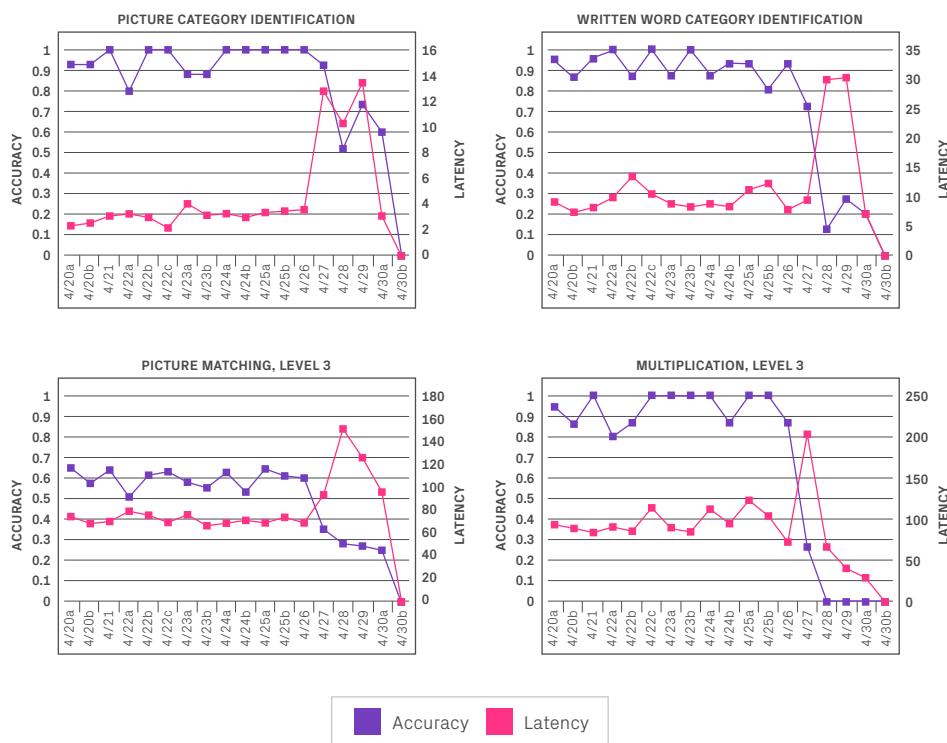
Kiran, S.

### HIGHLIGHTS

This case study shows how it was possible to detect the onset of a recurrent stroke due to changes in language and cognitive performance from Constant Therapy's accuracy and latency reports even before a confirmatory diagnosis was made.

### FIGURE 1

Patient performance between 4/20/13 and 4/30/13, in four task categories. As can be seen, performance declined significantly between 4/27 & 4/30.



### Research published using Constant Therapy

Godlove, J., Anantha, V., Advani, M., Des Roches, C., Kiran, S. **Comparison of therapy practice at home and in the clinic: A retrospective analysis of the Constant Therapy platform data set.** *Frontiers in Neurology*. doi: 10.3389/fneur.2019.00140

Des Roches, C., Mitko, A., Kiran, S. **Relationship between self-administered cues and rehabilitation outcomes in individuals with aphasia: understanding individual responsiveness to a technology-based rehabilitation program.** *Frontiers in Human Neuroscience*. 11(17). doi:10.3389/fnhum.2017.00007.

Mallet, K., Shamloul, R., Corbett, D., et al. **Recover Now: Feasibility of a mobile tablet-based rehabilitation intervention to treat post-stroke communication deficits in the acute care setting.** *PLOS ONE*. doi:10.1371/journal.pone.0167950.

Glynn, P., Eom, S., Zelko, F., Koh, S. **Feasibility of a mobile cognitive intervention in childhood absence epilepsy.** *Frontiers in Human Neuroscience*. 10(575). doi:10.3389/fnhum.2016.00575.

Postman, W. **Computer-mediated cognitive-communicative intervention for residents with dementia in a special care unit: an exploratory investigation.** *Perspectives of the ASHA Special Interest Groups*, 1 (SIG 15) 68-78. doi:10.1044/persp1.SIG15.68.

Mark, J., Onaral, B., Ayaz, H. **Evaluating neural correlates of constant therapy neurorehabilitation task battery: an fNIRS pilot study.** *Foundations of Augmented Cognition: Neuroergonomics and Operational Neuroscience*. 9743, 231-241.

Kiran, S. **How does severity of aphasia influence individual responsiveness to rehabilitation? Using big data to understand theories of aphasia rehabilitation.** *Seminars in Speech & Language* (pp. 48-59). doi:10.1055/s-0036-1571358.

Des Roches, C., Balachandran, I., Ascenso, E., Tripodis, Y., Kiran, S. **Effectiveness of an impairment-based individualized rehabilitation program using an iPad-based software platform.** *Frontiers in Human Neuroscience*. doi:10.3389/fnhum.2014.01015.

Kiran, S., Des Roches, C., Balachandran, I., Ascenso, E. **Development of an impairment-based individualized treatment workflow using an iPad-based software platform.** *Seminars in Speech & Language*. 35(1), 38-50. doi:10.1055/s-0033-1362995.

Kiran, S. **Detecting small and large scale fluctuations in language and cognitive performance: a longitudinal rehabilitation case study.** *International Journal of Physical Medicine and Rehabilitation*, 1-12. doi:10.4172/2329-9096.1000203.