Cogstate

# Identifying and defining a remote, at-home assessment of visuospatial memory in ADRD

About Cogstate

Cogstate is a neuroscience technology company on a mission to improve the understanding of cognitive health by simplifying how it is measured. For more than 20 years, Cogstate has supported the research needs of biopharmaceutical companies and academic institutions, as well as the clinical care needs of physicians and individuals worldwide. Cogstate creates easy-to-use digital tests that provide valid, reliable, and science-backed results and offer solutions that support the highest fidelity measurements possible.
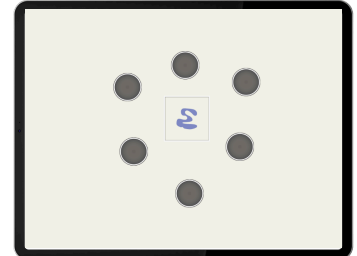
The opportunity

- Identifying key concepts of interest for measurement is an important component for Cogstate in the selection and development of fit-for-purpose COAs.

- Through DiMe's global ADRD survey, patients and care partners across the globe reported that visuospatial memory-related activities in daily living are a key meaningful aspect of health.

- Remembering the location of objects is particularly significant to patients and caregivers, as reflected in their experiences.

The challenge

- To date, limited patient experience data has been available to support the development of ADRD cognitive assessments in a manner consistent with the new FDA PFDD guidance series.

- For the preclinical AD population, remote, at-home assessments help reduce site and participant burden due to high screen failure rates and long trial durations, supporting recruitment and retention by accommodating participants' existing work and social commitments.

⚙️ The approach

- Cogstate aims to develop patient-relevant cognitive assessments optimized for remote, supervised, or unsupervised settings, enabling repeated evaluations across large, multicenter, multinational ADRD clinical trials.

- Cogstate's Continuous Paired Associate Learning (CPAL) test measures visuospatial memory task performance using the paired associative learning paradigm. Validation evidence for the task demonstrates sensitivity to deficits in people with amnestic mild cognitive impairment and learning deficits with repeated assessment in cognitively normal older adults with beta-amyloid.

- CPAL can be used to gather evidence of treatment benefits in ADRD clinical trials (including in remote/decentralized trial contexts) by using the visuospatial memory measure, a measure that is significant to patients and their caregivers.

🏅 The success

- ✔ A series of pilot and validation studies have refined the approach and confirmed the feasibility and acceptability of the task to participants when administered remotely, in addition to the psychometric properties.

- ✔ In conjunction with the work undertaken by DiME, a patient-relevant task of visuospatial memory has been identified, which can be administered remotely in the context of clinical trials in ADRD patients, particularly preclinical Alzheimer's disease.

> " The work undertaken by DiMe has gathered important data on the experiences of people with ADRD and their caregivers, identifying key concepts of interest for measurement in support of patient-focused drug development."
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> **— Dr. Chris J. Edgar**
> *Executive Scientific Advisor*
> *Cogstate*