Results: After TIA/minor stroke, short-delay (20-30 min) memory testing was unimpaired, but 1-week delayed testing showed an impaired performance compared to stroke-free controls. In the stroke group, ALF was present in 17% of the patients, compared to stroke-free controls, but more prevalent than rapid forgetting after short-delay memory testing.

Conclusions: ALF is present in patients with cerebrovascular disease, despite normal acquisition rates. The relation with neuroimaging findings and the clinical relevance of these results will be discussed.

Categories: Memory Functions/Amnesia
Keyword 1: amnesia

Symposium 13: Addressing Challenges in the Digital Assessment of Cognition: The Mobile Toolbox for Monitoring Cognitive Change

9:00 - 10:30am
Saturday, 4th February, 2023
Town & Country Ballroom C

Chair

Cindy Nowinski
Northwestern University Feinberg School of Medicine, Chicago, USA

Summary Abstract:
Cognitive Impairment (CI) is estimated to affect more than 16 million people, the majority of whom are 65 and older (Centers for Disease Control and Prevention, 2011). Moreover, there are about 5.8 million Americans currently living with the most common type of dementia, Alzheimer's Disease, which is projected to increase to 13.8 million people by 2050 (Alzheimer's Association, 2020). Clearly, the ability to detect early indicators of and risk factors for brain disease AND differentiate these from typical cognitive aging is crucial to supporting healthy aging. To date, there are few sensitive assessment tools for detecting normal and abnormal cognitive change that can be widely deployed in diverse research designs and populations. In addition, clinicians and researchers struggle to conduct assessments with some of the most vulnerable populations because of access issues (e.g., rural communities, rare disease populations), which exacerbates healthcare disparities for these groups. Remote digital assessments can help overcome these barriers by enabling repeated testing in naturalistic conditions, reducing participant burden and expense, and increasing research accessibility for under-represented populations.

This symposium will begin with an overview of the Mobile Toolbox (MTB), an app-based assessment tool and technology platform developed to address challenges in conducting longitudinal cognitive assessments over the adult lifespan. MTB enables completely remote, self-administered assessment using participants' own smartphones with additional capabilities for study set-up and data management and analysis. Our second presentation describes the initial evidence for the reliability and validity of the eight core Mobile Toolbox Cognitive tests, as well as associations with age in a healthy population. The third presentation will describe one site's experience using the MTB platform in a large, remote longitudinal study. The final presentation will consider the issues involved when studies utilize both in-person and remote assessment. Using the NIH Toolbox V3 Examiner version, from which several of the MTB tests were inspired, we will review the advantages and disadvantages of including remote assessments alone and in combination with face-to-face examination. To conclude, we will summarize the state of the current research and recommendations for neuropsychologists interested in using MTB in their future work.

Keyword 1: cognitive functioning
Keyword 2: assessment
Keyword 3: technology

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1 The Mobile Toolbox for Monitoring Cognitive Change

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