Alzheimer's disease (AD) CSF biomarker testing impacts clinical management. Methods: IMPACT-AD BC (NCT05002699, impactAD.org) is an observational, longitudinal study examining the role of AD CSF biomarker testing (i.e., amyloid-beta and tau proteoforms) in medical and personal decision-making, and health economics. For medical decision-making, physicians completed surveys on patient management plans before and after receiving the biomarker findings. Overall change in management was assessed as a composite measure of changes in the use of: (i) AD symptomatic medications, (ii) other dementia-relevant medications, (iii) diagnostic procedures, and (iv) referrals or counselling. Results: Of the 142 participants, 66% were determined to have CSF biomarker profiles on the AD continuum. Overall change in management was observed in 89% of patients, with the greatest changes by category being: diagnostic procedures > referrals and counselling > AD symptomatic medications > other dementia-relevant medications. Conclusions: The use of AD CSF biomarker testing increases diagnostic confidence and aids in medical decision-making. Notably, the addition of biomarker testing leads to a reduction in the use of other diagnostic procedures, helps optimize pharmacotherapy and results in increased physician-patient/family member counselling.

P.007

Web-based monitoring for cognitive decline following deep brain stimulation

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Background: There is a pressing need to monitor the cognitive outcomes of patients undergoing deep brain stimulation (DBS) for movement disorders, despite the prevalence of pre-operative cognitive evaluations. Previous research has demonstrated the potential for DBS to induce reversible cognitive decline, highlighting the need for post-operative cognitive monitoring. Methods: To address this issue, the present study sought to improve upon the existing Autonomous Cognitive Examination through the development of a 5-minute web-based exam. This examination leverages the capacity of machine-learning algorithms to evaluate complex multimodal inputs, including cognitive and movement disorders, and is made available through a web-based platform for physicians to administer to their patients. Results: The outcome of this study was the development of a cognitive evaluation platform, which enables physicians to administer and view results of a brief cognitive examination with sensitivity to multiple domains of cognition, including movement disorders. The web-application based screening examination is easily accessible and can be used on any device. Conclusions: This web-based cognitive examination offers a crucial solution for monitoring longitudinal cognition in high-risk patient populations undergoing DBS for movement disorders. Its ability to assess complex multimodal inputs has broad applications beyond movement disorders and serves as a valuable tool for detecting cognitive decline.

P.008

Alzheimer's disease biomarker testing from the perspective of patients and caregivers

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Background: To enrich our understanding of the impact of Alzheimer's disease (AD) CSF biomarker testing on patients and caregivers, we examined these perspectives within the IMPACT-AD BC study. Methods: IMPACT-AD BC (NCT05002699, impactAD.org) is an observational, longitudinal study examining the impact of AD CSF biomarker testing (i.e., amyloid-beta and tau proteoforms) on personal and medical utility, and health economics. Patients underwent AD biomarker testing as part of medical care (n=142), and for the personal utility arm, a subset of patients (n=34), and their 'care partner' (n=31), were interviewed post-biomarker disclosure to understand their decision-making to undergo testing and the impact of learning the test results. Results: The primary consideration in patients' decision to undergo testing was the desire for diagnostic clarity (63%). After biomarker result disclosure, patients' positive feelings stemmed largely from having greater diagnostic certainty (55%) and the ability to plan for the future (23%), including making financial changes (58%) and care plans (21%). Care partners conveyed that biomarker testing provided needed information to help plan for the future and spurred them to connect with community resources. Conclusions: Patients and care partners value the diagnostic clarity from AD biomarker testing and use the information to make informed future plans.

P.009

Comparison of Montreal Cognitive Assessment (MoCA) and Rowland Universal Dementia Assessment Scale (RUDAS) scores in diverse populations

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Background: The Montreal Cognitive Assessment (MoCA) and Rowland Universal Dementia Assessment Scale (RUDAS) are tests used to detect mild cognitive impairment (MCI) and dementia. However, it has been suggested that the MoCA may not be appropriate for diverse populations, and that the relatively newer RUDAS may be better suited as a universal cognitive test. Methods: The MoCA and RUDAS were administered at baseline visits for participants enrolled in the Prospective Registry of Persons with Memory Symptoms (PROMPT). Test scores were compared for patients with different levels of educational attainment, first language, and race using the Kruskal-Wallis test.