THE NATIONAL INSTITUTE OF HEALTH (NIH) TOOLBOX: PRELIMINARY REPORT OF ITS USE IN PARKINSON’S DISEASE

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Introduction: The National Institutes of Health (NIH) developed the Toolbox, a new behavioral and neurological battery of tests that assesses cognitive, sensory, motor, and emotion functions.

Aims: The purpose of this study was to assess the feasibility of the NIH Toolbox cognitive measures, a battery of computerized tests of reaction time, reasoning, memory, language, and attention in patients with PD.

Methods: We enrolled 42 participants with PD from an academic medical center who were treated for PD symptoms. Participants completed the NIH Toolbox measures following standard procedures. Means and standard deviations are presented for continuous variables; percentages are presented for discrete variables.

Results: The sample had a mean age of 66.9 (SD=8.8) and estimated IQ of 104.3 (SD=10.7), 71% were male and 88% were Caucasian. The mean UPDRS motor score was 9.0 (SD=5.8). All patients understood test instructions and completed all NIH Toolbox cognitive measures without problems. They reported high satisfaction rates with computerized test administration. On the NIH Toolbox cognitive measures, average scores were 17.1 (SD=8.8) on IBAM, 17 (SD=3) on List Sorting, 38.1 (SD=8.5) on Pattern Comprehension, and 2.6 (SD=0.7) on Vocabulary.

Conclusions: The NIH Toolbox cognitive measures are feasible to administer to participants with PD. Performance on these measures was relatively comparable to that of healthy controls in the NIH Toolbox validation studies. Future research is warranted to continue the validation of the NIH Toolbox in patients with PD and other disorders, and to derive norms for score interpretations.