C2 Neuropsychological Battery Update

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For the Cognitive Working Group of the CTF

October 17, 2024 – Clinical Task Force UDS4 Session

Goals and Design Principles for UDS4

- Maintain and enhance value of longitudinal data already collected

- Minimize participant and center burden

- Coverage of key cognitive domains

- Sensitivity for early detection and longitudinal change

- Assessments are applicable & translatable for diverse populations

- Test reliability and administration efficiency

- Validation data based on outcomes, biomarkers, neuropathology, etc.

- Any new instruments should be pilot tested and validated before ADRC network-wide adoption, and cross-walk studies performed to allow harmonization with previously collected data where possible

UDS4 Cognitive Battery Summary

- Retain UDS3 Battery plus T-Cog/V-Cog data collection

- Add a standardized verbal learning measure (choice of 2 options)
  - Rey Auditory Verbal learning Test (RAVLT) – More sensitive, longer
  - CERAD Word List – Shorter, less sensitive, good for later stage dementia

- Add digital speech capture of cognitive battery session
  - Enables future analysis of item level data without site entry via AI/ML
  - Initially local storage; shared via NACC after IT, privacy & storage addressed
  - See Guidelines document and watch for follow-up led by Rhoda Au (BU)

- Practice effects will be modeled vs use of alternate forms

- Future: Recommending selection and pilot testing of digital measures

UDSv4 – In Person

Test Order:

- MoCA
- Craft Story Recall (Immediate)
- Benson Complex Figure Copy
- Number Span Test (Forward and Backward)
- Category Fluency (Animals/Vegetables)
- Trail Making Test
- Benson Complex Figure Recall
- Craft Story Delayed
- Verbal Fluency: Phonemic Test (F and L words)
- Verbal Learning (Rey AVLT or CERAD)
- Additional tests/tasks that do not interfere with recall (e.g., GDS)
- Verbal Learning - Delayed & Recognition (Rey AVLT or CERAD)*
- MINT

Admin Time (min):

10
5
4
5
5
6-7
4
2
5
7/3
Varies
2
5

Cognitive Battery Issues

- Some flexibility regarding order of administration to accommodate site specific needs
- RAVLT and CERAD versions need to be the UDS4 standard forms for NACC to include
- Delay period should only include non-interfering tests or tasks
- Spanish and Chinese translations are in progress so use the UDS3 battery until they become available
- Watch for further information regarding:
  - QC procedures for scoring of MINT and other tests via NACC
  - Digital speech capture of cognitive battery – deidentification and sharing (NACC and Rhoda Au)
  - Potential pilot studies of digital tests and data collection
  - Updates from the V-Cog validation study which is progressing well
- Continue to share questions and feedback with NACC and the CTF

Questions?

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