

LIMBIC CONCUSSION CLINICAL ASSESSMENT TOOL (*Examination and Testing*)

- *These variables are completed at Initial and Comprehensive Re-Evaluations, except as noted. Collection Schedule – baseline, 1-year-post-index mTBI, 3-year-post-index mTBI, 5-year-post-index mTBI, then every 5 years afterwards*
- *The self-report questionnaires may be completed prior to visit, reviewed by study staff for completeness and reviewed with subject at visit; alternatively, they may be collected remotely, such as over the telephone, if the participant is logistically unable to come in person to a post-baseline comprehensive visit to achieve partial data collection instead of entirely missed visit.*

1 - Physiological

- Biometrics:
 - BMI (height and weight)
 - BP, HR, RR
- Brain Electrophysiology
 - Clinical Seizures:
 - *All Sites:* At baseline assessment and at all follow-up points, all participants complete the “Epilepsy Screening Questionnaire” (ESQ).
 - *All sites:* at baseline and comprehensive follow-up points study staff use medical record review to complete an Epilepsy Documentation Form (EDM).
 - *EEG sites only:* At baseline and at comprehensive follow-up points, participants undergo wakeful EEG testing per the standard paradigm used in the VA Epilepsy Centers of Excellence (CoE) clinical protocol.
 - EEG sites only:*
 - Quantitative EEG (QEEG); 10 minutes of resting EEG collected for QEEG brain network analyses across frequency spectrums.
 - Event Related Potentials (ERPs): Computerized behavioral tasks performed during EEG recording to generate ERPs to assess Electrophysiology of Cognition. Tasks include auditory and visual modalities of ‘oddball task’ and a semantic priming task.
- Advanced Brain Imaging for functional connectivity and cerebral blood flow (see module ‘C’ further below)

2 – Human Performance

- Neuro-Cognition comprehensive multi-modal battery
 - NIH Toolbox Cognition Battery
 - Wechsler Adult Intelligence Scale 4th version (WAIS-IV)
 - Trail Making Test (TMT) Part A& B :
 - California Verbal Learning Test (CVLT-II)
 - Brief Visuospatial Memory Test-Revised (BVMT-R)
 - Delis-Kaplan Executive Function System (D-KEFS) Verbal Fluency Test (VFT).
 - Brief Test of Adult Cognition by Telephone (BTACTION)
 - Brief Mental Status Examination (CDR)
- Motor/Movement Performance Tests

- Fine motor: Grooved Pegboard
- Gait: NIH Toolbox 4-Meter Walk Gait Speed Test
- Motor Examination Index from Unified Parkinson's Disease Rating Scale (UPDRS)
- Computerized oculomotor (eye tracking) test
- Sensory Systems Performance Tests:
 - Smell: BRIEF Smell Identification Test (BSIT)
 - Hearing
 - Audiometry testing for hearing thresholds
 - SCAN-3. This test is comprised of a battery of tests to detect auditory processing disorders in adolescents and adults. Results can help identify the presence of a temporal processing problem, can test the ability to listen with background noise, and provides a dichotic listening task.
 - Visual Acuity of each eye using a standard Snellen eye chart.
- Postural Stability as Motor-Sensory (Vestibular, Visual, & Proprioception) Integration Performance Test:
 - *CDP sites* - Computerized Dynamic Posturography (CDP)
 - *Sites not doing CDP*– Balance Error Scoring System (BESS)