

PSYCHOMETRIC AND CLINICAL PROPERTIES OF A NEW, COMPUTERIZED NEUROCOGNITIVE SCREENING BATTERY

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“CNS Vital Signs” is an internet-based neurocognitive screening battery, comprised of seven familiar tests: Verbal and Visual Memory, Tapping, Coding, the Stroop, Shifting Attention and the CPT. The test battery is self-administered on an ordinary PC, and takes 30 minutes. The Vital Signs battery is suitable to screen for mild cognitive dysfunction of various origins.

The tests in the “Vital Signs” battery are highly reliable (test-retest, $r = 0.45-0.85$). Normative data from 600 normal subjects, age 10-90, indicates typical performance differences by age and gender. Concurrent validity is demonstrated in studies comparing the Vital Signs battery to conventional neuropsychological tests.

Clinical data is presented for more than 1,000 patients with neurocognitive and psychiatric disorders. The battery generates distinct profiles for ADHD, brain injury and dementia. It is sensitive to cognitive deficits associated with depression and bipolar disorder.

Data also support the sensitivity of the Vital Signs battery to psychostimulant drugs in patients with ADHD, with significant differences in psychomotor speed, reaction time, complex attention and executive function. In a study of 292 depressed patients on seven different antidepressants, compared to 50 untreated depressives and 392 normal matched controls, distinct profiles emerge in measures of Memory, Attention and Reaction Time.