Cognitrax
Measure and Monitor Brain Performance

Frequently Asked Questions

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"Diseases of the brain commonly produce changes in behavior, including impairment of cognitive abilities and production of neuropsychiatric symptoms. Knowledge of the presence and characteristics of these changes can aid in the evaluation, management, and longitudinal care of patients with neurologic and psychiatric diseases." Adapted from: Neurology 1996;47:592-599.

A Product of CNS Vital Signs

Frequently Asked Questions

Frequently-Asked Questions contains answers to most of the common questions clinicians and administrators ask about Cognitrax. For additional information call 888-750-6941 or email support@cognitrax.com.

What is Cognitrax?

Cognitrax is a reimbursable assessment procedure that utilizes scientifically validated, objective, and reliable computerized neuropsychological tests to evaluate the neurocognitive status of patients and covers a range of mental processes from simple motor performance, attention, memory, to processing speed. Cognitrax also contains a well known evidence-based medical rating scales to access depression. Immediately following the assessment, the software automates a standardized scoring of the patient assessment eliminating variability and rater bias. The assessment platform auto-scores and generates user-friendly reports with summary dashboards, individual responses, and longitudinal views. The neurocognitive report presents the raw test scores, domain scores with a comparison of age-adjusted norms. The standardized presentation of the report and its data supports the clinicians' evaluation and management activities.

The use of Cognitrax with other proven neurological exams gives the clinicians a robust view of the patient's neurocognitive status. The assessment platform lends an added dimension to the patient evaluation and generates useful data that can guide one's decisions about ongoing treatments or the need for additional information or whether a referral is warranted.

How is Cognitrax used?

The clinical applications for Cognitrax can be summarized in terms of three situations:

1. Establish a neurocognitive baseline in each patient to evaluate current status and use as a comparator in later testing.
2. Distinguish mild or subtle neurocognitive deficits compared to the normal population, which may aid in evaluation and management of neuropsychiatric, neurodegenerative or other medical conditions. (e.g., MCI – Mild Cognitive Impairment, Dementia, AD/HD, etc.)
3. Evaluate and manage a patient serially to assist in decision making on the patient's activity, suggest proper treatment, and support medication compliance (e.g., to evaluate disease, treatment, or medication effects).

What computerized neuropsychological tests are used in Cognitrax?

The core Cognitrax neurocognitive assessment battery consists of four subtests: Finger Tapping (FTT), Verbal Memory (VBM), Symbol Digit Coding (SDC), and the Continuous Performance Test (CPT).

What does each subtest of Cognitrax measure?

The Cognitrax neurocognitive assessment captures an objective view of five basic brain functions: verbal memory, psychomotor speed, processing speed, simple visual attention, and motor speed. The battery consists of seven subtests which in different combinations compose the above nine cognitive domains. Cognitrax tests of Verbal Memory (word list learning and delayed memory) and is a venerable memory recognition test. Finger Tapping Test generates relevant data about fine motor control, which is based on motor speed as well as kinesthetic and visual-motor ability. The Symbol Digit Coding Test generates processing speed data and is included in a composite score for psychomotor speed and the single processing speed domain. The Continuous Performance Test is a measure of visual vigilance or sustained attention or attention over time.

What is the normative structure of Cognitrax?

The original seven tests of the Cognitrax neurocognitive assessment platform have been normed in a large sample (n=1900) of normal individuals, from age 8 to 90. "Normals" are defined as healthy individuals, with no active medical condition, and with no history of neurological or psychiatric disorders. Normals may be on stable doses of medications for well-controlled medical conditions, like hypertension or arthritis, but not on any psychotropic medication.

How do I code and get reimbursed for my services?

The Cognitrax procedure codes have been reimbursed by Medicare, Medicaid and almost all private insurance companies when billed using the appropriate ICD-9 / DSM codes and modifiers. Most public payer reimburse any licensed practitioner e.g. MD, DO, PhD, CN, P, PA, however, a few health plans reimburse only licensed psychologists, neurologists, psychiatrists or developmental/behavioral specialists. GO TO the Reimbursement section of the Cognitrax website for more detailed reimbursement and coding information.

Have there been any concurrent validity studies comparing Cognitrax to conventional tests?

Yes, refer to "Reliability and Validity of a computerized neurocognitive test battery, CNS Vital Signs", Arch Clin Neuropsychol. 2006 Oct;21(7):623-43.

How soon can I retest the same person on Cognitrax?

This is a KEY ADVANTAGE as Cognitrax was designed for serial administration. The words and symbols in the test are auto-randomized from a large bank of potential stimuli generating an unlimited number of alternate forms. This minimizes potential learning effects in serial administration. Tests other than memory tests are routinely administered several times a day in research settings.

How do I know if the neurocognitive assessment is valid?

The Cognitrax Validity Indicator (VI) is a guideline identifying the possibility of an invalid test or domain score. When reviewing a report, a "No" in the VI column suggests the clinician should evaluate whether or not the test subject understood the test, put forth their best effort, or has a clinical condition requiring further evaluation. The Validity Indicator alerts the clinician to the possibility of an invalid test allowing the clinician, examiner or testing technician to question the testing subject: Do the testing results reflect an understanding of the test and the instructions? Did the testing subject put forth their best effort? Did they get a good night's sleep? Does the subject have poor vision and need their glasses? Do the results suggest willful exaggeration, e.g., malingering?

How is the Cognitrax Validity Indicator determined?

The "Validity Indicator" scoring algorithm is based on research presented (Detecting Invalidity In Neurocognitive Tests) at International Society for CNS Clinical Trials and Methodology (ISCTM) in 2009. The poster is available on the CNS Vital Signs website.

Neurocognitive Test	Validity Criteria
Verbal Memory Test	VERM Correct Hits Immediate + VERM Correct Passes Immediate + VERM Correct Hits Delay + VERM Correct Passes Delay > 30
Finger Tapping Test	FTT Right Taps Average + FTT Left Taps Average >= 40
Symbol Digit Coding Test	SDC Correct Responses >= 20 AND Correct Responses > Errors*
Continuous Performance Test	CPT Correct Responses >= 30 AND CPT Correct Responses > CPT Commission Errors*

Clinical Domains	Validity Criteria
Verbal Memory	Verbal Memory Test is valid
Psychomotor Speed	Finger Tapping Test and Symbol Digit Coding Test are valid
Processing Speed	Symbol Digit Coding Test is valid
Simple Visual Attention	Continuous Performance Test is valid
Motor Speed	Finger Tapping Test is valid

How are the cognitive domains calculated?

Clinical Domains	Domain Score Calculations
Verbal Memory	VBM Correct Hits Immediate + VBM Correct Passes Immediate + VBM Correct Hits Delay + VBM Correct Passes Delay
Psychomotor Speed	FTT Right Taps Average + FTT Left Taps Average + SDC Correct Responses
Processing Speed	SDC Correct Responses - SDC Errors
Simple Visual Attention	Continuous Performance (CPT) Correct Responses minus CPT Commission Errors
Motor Speed	Finger Tapping Test Right Taps Average + Finger Tapping Test Left Taps Average

What systems does the Cognitrax run on?

Cognitrax will run on any computer running an HTML5 supported browser(s).

What do I need to do with my computer to ensure optimum performance of Cognitrax?

Ideally, computerized tests should run on a dedicated computer; however Cognitrax will run on any computer that meets our basic system requirements. It is important that Cognitrax is the only application open and running during testing. Additional programs should be closed; spyware scanners, virus scanners and automatic updates should be turned off and/or scheduled during a non-testing period of time.

Is special hardware required to use Cognitrax?

No special hardware is required to run Cognitrax. You will need a computer, monitor, and keyboard to run the application. A printer is necessary if you will be printing out the patient report at the conclusion of the test.

Is the report saved automatically?

Yes, the report is automatically saved in your account.

Who should take Cognitrax?

Cognitrax has been normed on a sample of individuals from ages 8 to 90. The test was designed to be self-administered; however, younger children and older adults who take the test often need a family member with them to ensure that they understand the instructions.

Who should not take Cognitrax?

Individuals who are unable to read and hear should not take Cognitrax. Cognitrax is not appropriate for older adults who are severely demented. Individuals with MMSE scores less than 20 may not be able to perform some of the more complicated tests. There are "spacebar" only tests for individuals who may be impaired.

Can the test subject be left alone during testing?

Yes, Cognitrax was designed for self-administration. It is sometimes helpful to ask a technician or a family member to sit in with an elderly or young test taker to assure test instruction comprehension.

What are the optimal Cognitrax test taking conditions?

Cognitrax is ideally administered in a quiet environment with minimal interruptions. A separate testing room is ideal; however, it is not necessary. A white noise maker or screen will adequately assure quiet test taking conditions.

How do I begin administration of Cognitrax?

Test administration can be performed by a non -clinical staff person. To begin, click the Login to test button on the homepage. Login, then enter a Subject Reference Number and subsequently a data of birth when queried for it. The date of birth is necessary to generate a standard score. Then enter any desired demographic information CLICK OK and select the appropriate tests and rating scale. Then begin testing.

What do I enter for Patient Reference ID?

The subject reference can be an alphanumeric entry. Users are encouraged to follow HIPPA guidelines when choosing an appropriate Patient ID. Practices are encouraged to set a standard Patient ID policy for securely referencing patients / subjects.

Is it possible to get the test report in a different language?

Currently, our test reports are only available in English.

Is the report generated automatically or must I send away for the results?

The report is auto-scored immediately following the testing session. The report can be printed immediately and provides both the clinical snapshot of several tests and domain scores.

Do I need to save the report?

Cognitrax local software automatically saves the test data and report to the web based servers or cloud. Web-based assessments are automatically stored in your account and can be accessed from the Login to View Reports button on the homepage,

What is the cost of Cognitrax?

Cognitrax is:
$35 each for 1 assessment session.
$25 each for a 10-24 Assessment Purchase
$24 each for a 25-49 Assessment Purchase
$23 each for a 50-99 Assessment Purchase
$22 each for a 100 or more Assessment Purchase

How do I pay for additional sessions?

We accept payment by Visa, MasterCard. For special payment arrangements such as purchase orders or invoicing please contact us at support@cognitrax.com.

Is the Cognitrax website secure?

Yes, the Cognitrax website use 128 bit encryption. All data including screen images, file transfers, credit card details, etc. are encrypted.

Can I purchase additional sessions by phone?
Purchases assistance can be made over the phone. Please call 888-750-6941.

What is the cost of the Cognitrax custom keyboard?
The custom keyboard is $55 (US dollars). This price includes shipping and handling.

I don't have a computer available for testing; can I purchase one from Cognitrax?
Yes, we do sell turnkey computer solutions ready for use out of the box. Contact us at support@cnsvs.com for additional information.