

<b>CNS Vital Signs Report</b>	<b>Test Date: September 3, 2013 12:14:14</b>
Subject Reference/ID: JillMackay	Administrator: Mark Squibb
Age: 55	Language: English (United States)
Total Test Time: 50:23 (min:secs)	Online Version 1.0

Patient Profile	Percentile Range				> 74	25 - 74	9 - 24	2 - 8	< 2
	Standard Score Range				> 109	90 - 109	80 - 89	70 - 79	< 70
Domain Scores	Subject Score	Standard Score	Percentile	Valid Score**	Above	Average	Low Average	Low	Very Low
Neurocognitive Index (NCI)	NA	102	55	Yes		X			
Composite Memory	88	81	10	Yes			X		
Verbal Memory	42	68	2	Yes					X
Visual Memory	46	103	58	Yes		X			
Psychomotor Speed	150	89	23	Yes			X		
Reaction Time*	593	112	79	Yes	X				
Complex Attention*	3	112	79	Yes	X				
Cognitive Flexibility	54	114	82	Yes	X				
Processing Speed	55	109	73	Yes		X			
Executive Function	55	114	82	Yes	X				
Social Acuity	10	112	79	Yes	X				
Reasoning	5	102	55	Yes		X			
Sustained Attention	36	117	87	Yes	X				
Working Memory	14	118	88	Yes	X				
Simple Attention	39	92	30	Yes		X			
Motor Speed	93	79	8	Yes				X	

Domain Dashboard: Above average domain scores indicate a standard score (SS) greater than 109 or a Percentile Rank (PR) greater than 74, indicating a high functioning test subject. Average is a SS 90-109 or PR 25-74, indicating normal function. Low Average is a SS 80-89 or PR 9-24 indicating a slight deficit or impairment. Below Average is a SS 70-79 or PR 2-8, indicating a moderate level of deficit or impairment. Very Low is a SS less than 70 or a PR less than 2, indicating a deficit and impairment. Reaction times are in milliseconds. An \* denotes that "lower is better", otherwise higher scores are better. Subject Scores are raw scores calculations generated from data values of the individual subtests.

VI\*\* - Validity Indicator: Denotes a guideline for representing the possibility of an invalid test or domain score. "No" means a 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.

Verbal Memory Test (VBM)	Score	Standard	Percentile	
Correct Hits - Immediate	7	65	1	Verbal Memory test: Subjects have to remember 15 words and recognize them in a field of 15 distractors. The test is repeated at the end of the battery. The VBM test measures how well a subject can recognize, remember, and retrieve words e.g. exploit or attend literal representations or attribute. "Correct Hits" refers to the number of target words recognized. Low scores indicate verbal memory impairment.
Correct Passes - Immediate	15	110	75	
Correct Hits - Delay	6	71	3	
Correct Passes - Delay	14	97	42	
Visual Memory Test (VSM)	Score	Standard	Percentile	
Correct Hits - Immediate	11	93	32	Visual Memory test: Subjects have to remember 15 geometric figures, and recognize them in a field of 15 distractors. The test is repeated at the end of the battery. The VIM test measures how well a subject can recognize, remember, and retrieve geometric figures e.g. exploit or attend symbolic or spatial representations. "Correct Hits" refers to the number of target figures recognized. Low scores indicate visual memory impairment.
Correct Passes - Immediate	13	112	79	
Correct Hits - Delay	14	119	90	
Correct Passes - Delay	8	83	13	
Finger Tapping Test (FTT)	Score	Standard	Percentile	
Right Taps Average	49	84	14	The FTT is a test of motor speed and fine motor control ability. There are three rounds of tapping with each hand. The FTT test measures the speed and the number of finger-taps with each hand. Low scores indicate motor slowing. Speed of manual motor activity varies with handedness. Most people are faster with their preferred hand but not always.
Left Taps Average	44	77	6	

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<b>Symbol Digit Coding (SDC)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Correct Responses	57	110	75	The SDC test measures speed of processing and draw upon several cognitive processes simultaneously, such as visual scanning, visual perception, visual memory, and motor functions. Errors may be due to impulsive responding, misperception, or confusion.
Errors*	2	87	19	
<b>Stroop Test (ST)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Simple Reaction Time*	296	102	55	The ST measures simple and complex reaction time, inhibition / disinhibition, mental flexibility or directed attention. The ST helps assess how well a subject is able to adapt to rapidly changing and increasingly complex set of directions. Prolonged reaction times indicate cognitive slowing / impairment. Errors may be due to impulsive responding, misperception, or confusion.
Complex Reaction Time Correct*	535	113	81	
Stroop Reaction Time Correct*	650	110	75	
Stroop Commission Errors*	1	98	45	
<b>Shifting Attention Test (SAT)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Correct Responses	56	111	77	The SAT measures executive function or how well a subject recognizes set shifting (mental flexibility) and abstraction (rules, categories) and manages multiple tasks simultaneously. Subjects have to adjust their responses to randomly changing rules. The best scores are high correct responses, few errors and a short reaction time. Normal subjects may be slow but accurate, or fast but not so accurate. Attention deficit may be apparent.
Errors*	1	115	84	
Correct Reaction Time*	928	119	90	
<b>Continuous Performance Test (CPT)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Correct Responses	40	103	58	The CPT measures sustained attention or vigilance and choice reaction time. Most normal subjects obtain near-perfect scores on this test. A long response time may suggest cognitive slowing and/or impairment. More than 2 errors (total) may be clinically significant. More than 4 errors (total) indicate attentional dysfunction.
Omission Errors*	0	103	58	
Commission Errors*	1	88	21	
Choice Reaction Time Correct*	452	93	32	
<b>Perception Of Emotions Test (POET)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Correct Responses	11	95	37	The POET measures how well a subject can perceive and identify specific emotions. The POET is an identification test of the positive emotions "happy" and "calm" and the negative emotions "angry" and "sad". "Social cognition" or "emotional acuity" has been defined as "the way in which people make sense of other people and themselves". It is the ability to perceive and understand social information. The reaction times in POET are much longer than in the other tests, indicating the complexity of central processes governing emotional acuity.
Average Correct Reaction Time*	979	107	68	
Omission Errors*	1	95	37	
Commission Errors*	1	114	82	
<b>Positive Emotions</b>				
Correct Hits	6	106	66	
Reaction Time*	946	103	58	
<b>Negative Emotions</b>				
Correct Hits	5	88	21	
Reaction Time*	1019	108	70	
<b>Reasoning Test (RT)</b>	<b>Score</b>	<b>Standard</b>	<b>Percentile</b>	
Correct Responses	10	106	66	The NVRT measures how well a subject can perceive and understand the meaning of visual or abstract information and recognizing relationships between visual-abstract concepts. The NVRT is comprised of 15 matrices, or visual analogies. The matrices are progressively more difficult. Each is presented for 14.5 seconds. Non-verbal or visual-abstract reasoning is the process of perceiving issues and reaching conclusions through the use of symbols or generalizations rather than concrete factual information.
Average Correct Reaction Time*	4517	107	68	
Commission Errors*	5	99	47	
Omission Errors*	0	120	91	

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Four Part Continuous Performance Test	Score	Standard	Percentile	
<b>Part 1</b>				The FPCPT test is a four part test that measures a subject's working memory and sustained attention. The FPCPT is a four part test: PART ONE - is a simple reaction time test, the subject must press the space bar when any stimulus is presented; PART TWO - is a variant of the continuous performance test, the subject is asked to respond to one stimulus, but not to any others. Discrimination is required, so the reaction times that are generated are "choice reaction times". PART THREE - is a "one back" CPT. The subject has to respond to a figure only if the figure immediately preceding was the same. PART FOUR - is a "two-back" CPT. It is a difficult task and is used to measure working memory. Parts two, three, and four of the tests are used to calculate sustained attention domain.
Average Correct Response Time*	335	103	58	
<b>Part 2</b>				
Correct Responses	6	103	58	
Average Correct Response Time*	477	79	8	
Incorrect Responses*	0	104	61	
Average Incorrect Response Time*	0			
Omission Errors*	0	103	58	
<b>Part 3</b>				
Correct Responses	16	113	81	
Average Correct Response Time*	556	98	45	
Incorrect Responses*	0	104	61	
Average Incorrect Response Time*	0			
Omission Errors*	0	113	81	
<b>Part 4</b>				
Correct Responses	15	120	91	
Average Correct Response Time*	616	104	61	
Incorrect Responses*	1	103	58	
Average Incorrect Response Time*	557	100	50	
Omission Errors*	1	120	91	