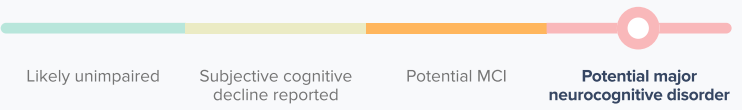
Assessment Details

ID: test123 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11

Assessment Summary

Potential major neurocognitive disorder

Clinical interpretation required.



DSM-5 Criteria	Outcome
Criterion 1: Neurocognitive Assessment Results Memory[1]: 2 of 2 tasks impaired Reasoning[1]: 0 of 2 tasks impaired Verbal Ability[1]: 1 of 2 tasks impaired Total[2]: 3 of 6 tasks impaired	Objective impairment detected
Criterion 2: Functional Dependency Results (IADL) 1 dependency reported in the IADL questionnaire. Meets the threshold of 1 dependency.	Functional dependency detected
Criterion 3: Subjective Cognitive Decline Results (IQCODE-SR) Score of 3.44 reported in the IQCODE questionnaire. Meets the threshold of 3.22.	Subjective cognitive decline reported

Other Considerations[3]

Anxiety (GAD-7) Minimal anxiety symptoms, score of 1 reported in the GAD-7 questionnaire. Below the threshold of 5.	No anxiety symptoms reported
Depression (PHQ-9) Minimal depression symptoms, score of 1 reported in the PHQ-9 questionnaire. Below the threshold of 5.	No depression symptoms reported

[1] A domain is considered impaired if the results of two tasks within that domain are below the typical range.
[2] Below typical performance in two or more tasks across different domains may indicate nonspecific impairment or decline.
[3] DSM-5 criteria for MCI and dementia state that cognitive deficits should not be better explained by another mental disorder (e.g., major depressive disorder, schizophrenia), and should not occur exclusively in the context of a delirium. Consider additional clinical assessments, if necessary.

The purpose of the dementia protocol is to assist the clinician in assessing dementia symptoms, however it is not a standalone diagnostic tool. Any conclusions drawn from the dementia protocol should be paired with clinical interviews and observations, other mental health examinations or assessments administered, and other evaluations of the patient and/or the patient's family history.

Assessment Details

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Neurocognitive Assessment Results

Memory

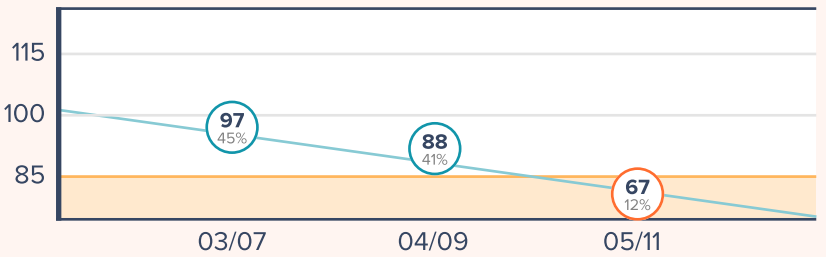
Indicative of memory domain impairment.

Short-term memory is the ability to retain, manipulate, and recall information for a short period of time. Some types of cognitive decline, known as amnestic, are characterized by deficits in the memory domain.

Visuospatial Working Memory

Number Ladder

A measure of visuospatial working memory — the ability to remember information about objects in space, and update memory based on changing circumstances.

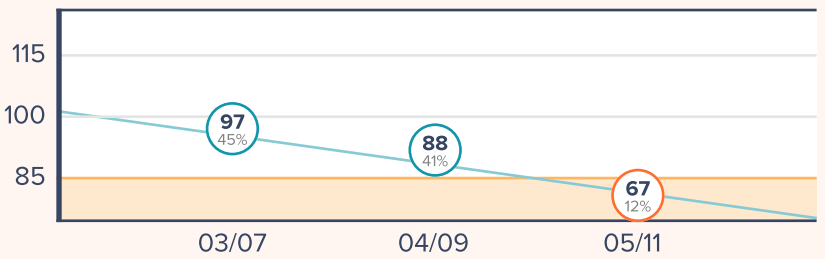


Below typical range

Episodic Memory

Paired Associates

A measure of episodic memory — the ability to remember specific events, paired with the context in which they occurred.



Below typical range

Legend: Below Typical Range (-1σ) Trend Line

Meaningful Decline: statistical thresholds used are based on a two-tailed analysis, $p < 0.2$.

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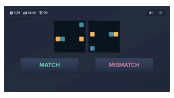
Cognitive Assessment Details

Reasoning

Reasoning is the ability to transform information according to logical rules and make good decisions. Some types of cognitive decline are characterized by deficits in reasoning, and may be labeled as non-amnestic if memory deficits are not also present.

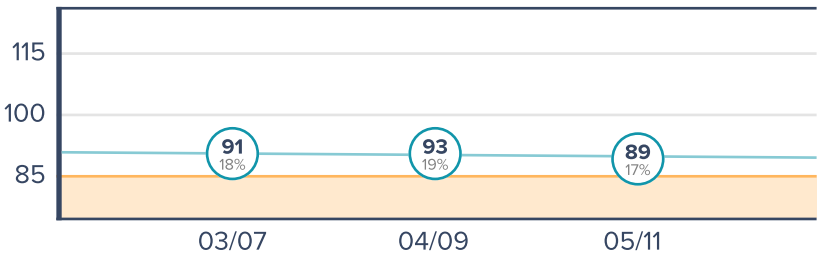


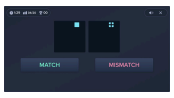
Mental Rotation

Rotations

Measures spatial short-term memory, involved in tasks where nonverbal information needs to be stored and recalled.

Within typical range



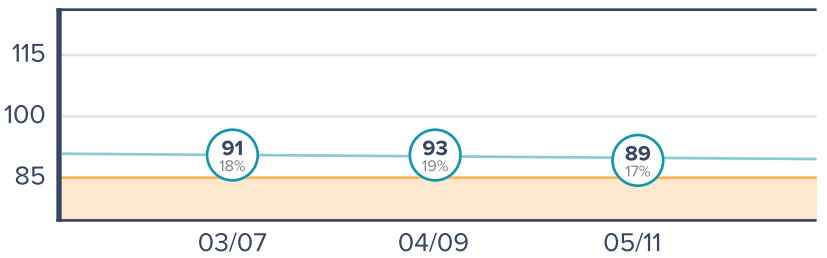


Attention

Feature Match

A measure of attention – the ability to focus on relevant details or differences.

Within typical range



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Assessment Details

ID: test123 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11

Cognitive Assessment Details

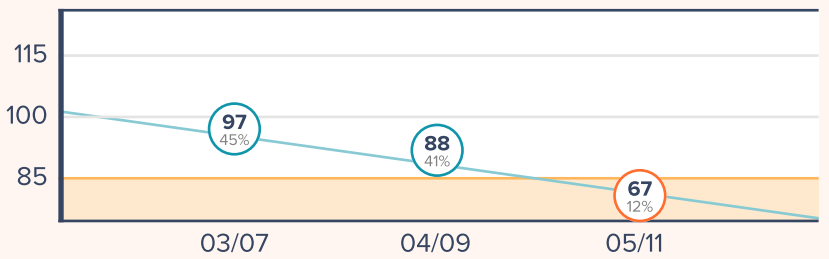
Verbal Ability

Verbal ability is the ability to understand, remember, and pay attention to language-based information. Some types of cognitive decline are characterized by deficits in language, and may be labeled as non-amnestic if memory deficits are not also present.

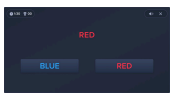
Verbal Short-Term Memory

Digit Span

Measures verbal short-term memory capacity, which is needed to hold information in mind and verbally rehearse it until it is needed.



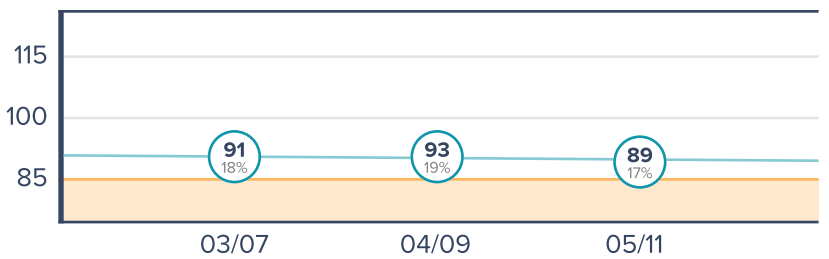
Below typical range



Response Inhibition

Double Trouble

A measure of response inhibition – the ability to concentrate on relevant information in order to make a correct response despite interference.



Within typical range

Legend: Below Typical Range (-1σ) Trend Line

Meaningful Decline: statistical thresholds used are based on a two-tailed analysis, $p < 0.2$.

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11 Page 5 / 10

Questionnaire Details

IADL Questionnaire

Functional Ability-Related Symptoms

The Instrumental Activities of Daily Living (IADL) Scale is used to assess independent living skills of an elderly individual, and measures functional ability as well as declines and improvements over time.

Indicative of low function, dependence.

Test Scores: 7 of 8

Threshold: 7 or fewer

Symptoms

This individual reported being dependent on others for completion of the following activities:

- Manages day-to-day purchases, but needs help with banking, major purchases, etc.

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11 Page 6 / 10

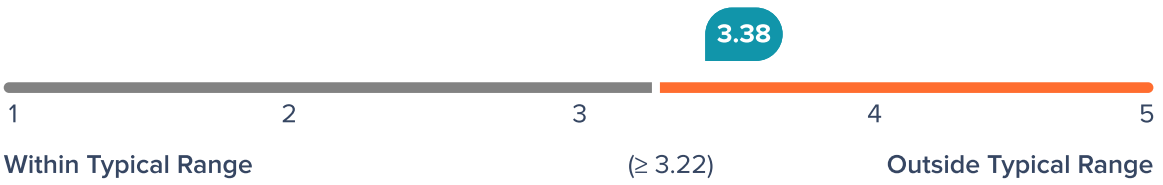
Questionnaire Details

IQCODE-SR Questionnaire

Subjective Decline-Related Symptoms

The Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) developed by Jorm et al. focuses on subjective change and is useful in screening and evaluating dementia.

Indicative of subjective cognitive decline.



Test Score: 3.38

Threshold: Above 3.22

Symptoms

This individual has reported worsening of the following items, compared to 10 years ago:

- Recalling conversations a few days later (A bit worse)
- Remembering where to find things which have been put in a different place from usual (A bit worse)
- Handling other everyday arithmetic problems e.g. knowing how much food to buy, knowing how long between visits from family or friends (Much worse)

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11 Page 7 / 10

Questionnaire Details

GAD-7 Questionnaire

Anxiety-Related Symptoms

The GAD-7 is used to objectively determine the severity of anxiety symptoms, and to monitor symptom changes and treatment effects over time. Individuals diagnosed with anxiety may experience cognitive impairments, requiring it to be ruled out as the primary cause of cognitive impairment prior to MCI diagnosis.

Not indicative of anxiety.

Test Score: 0 of 21

Threshold: 5 or more

Symptoms

This individual has reported being bothered by the following over the last 2 weeks:

- None

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11 Page 8 / 10

Questionnaire Details

PHQ-9 Questionnaire

Depression-Related Symptoms

The PHQ-9 is used to objectively determine the severity of depression symptoms, and to monitor symptom changes and treatment effects over time. Individuals diagnosed with depression may experience cognitive impairments, requiring it to be ruled out as the primary cause of cognitive impairment prior to MCI diagnosis.

Not indicative of depression.

Test Scores: 1 of 27

Threshold: 5 or more

Symptoms

This individual has reported being bothered by the following over the last 2 weeks:

- None

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11

Dementia Overview

Overview

Dementia refers to a decline in memory, reasoning, or other cognitive abilities, leading to impairment in daily activities. Impairments that do not disturb daily function are referred to as mild cognitive impairment (MCI), which sometimes represents an early stage of dementia. The DSM-5 defines mild neurocognitive disorder (synonymous with MCI) as meeting these criteria:

1. Evidence of modest cognitive decline, based on expressed concern about decline and modest impairment in one or more cognitive domains; and
2. Symptoms do not interfere with independence in everyday activities; and
3. Symptoms are not only seen in context of delirium; and
4. Symptoms are not better explained by another mental disorder (e.g., severe depression or anxiety)

If loss of independence is also present, the patient may meet criteria for major neurocognitive disorder, or dementia. Additional clinical steps are needed to identify etiology, such as Alzheimer's, vascular dementia, or Parkinson's.

Glossary

Amnestic: Involving memory. When the memory domain is potentially impaired, the report will label a potential neurocognitive disorder as amnestic or nonamnestic, which may inform etiology.

Domain: A category containing closely related areas of cognition. The report includes the domains of short-term memory, reasoning, and verbal ability.

DSM-5: The latest version of the Diagnostic and Statistical Manual of Mental Disorders, used to identify diagnostic criteria for mental conditions.

Functional impairment: Difficulty completing daily activities independently. DSM-5 criteria for major neurocognitive disorder include deficits that interfere with independence, at a minimum, in complex instrumental activities of daily living.

Major neurocognitive disorder: The DSM-5 term for cognitive decline beyond normal aging accompanied by a loss in ability to perform daily tasks independently. Often synonymous with dementia.

Mild neurocognitive disorder and mild cognitive impairment (MCI): In describing modest loss in cognitive ability, the DSM-5 uses the term mild neurocognitive disorder, which is often synonymous with MCI.

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Assessment Details

ID: 574983 **Birthdate:** 1945/12/31 **Group:** Females 75-84 **Date:** 2023/05/11 Page 10 / 10

Dementia Overview

Objective cognitive impairment: Function lower than age-matched controls. In the report, potential impairment is defined as scoring more than one standard deviation below the population mean. Overall objective impairment is defined as impairment in at least two tasks.

Percentile: The percentage of individuals in the age-matched norms that the patient scored higher than. Patients at approximately the 16th percentile (one standard deviation below average) or lower on cognitive tasks are considered potentially impaired.

Subjective cognitive decline: A reported decline in cognition. In the absence of an objective baseline, evidence of decline is often based on concern of the individual, a knowledgeable informant, or the clinician.

Typical range: The range of task scores in which a patient is not considered impaired. In the report, the typical range is defined as within one standard deviation of the mean.

Impairment Threshold

The DSM-5 criteria for mild neurocognitive disorder include evidence of a substantial impairment in cognitive performance, which corresponds to having two or more tasks below the typical range. Task scores lower than 1 standard deviation (-1σ) below the mean (below the 16th percentile) are considered below the typical range.

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