SCREENING FOR MILD COGNITIVE IMPAIRMENT (MCI): CRITERIA AND TOOLS

In a large percentage of patients with MCI, early detection and diagnosis of Alzheimer’s disease (AD) may be possible.

According to practice guidelines from the American Academy of Neurology (AAN), appropriate diagnosis of MCI is important in order to:

- **Assess** for reversible causes of cognitive impairment
- **Help** patients and families understand the cause of their cognitive concerns
- **Discuss** the prognostic possibilities so patients and families can plan accordingly

FOUR CLINICAL CRITERIA FOR THE DIAGNOSIS OF MCI FROM THE NIA-AA WORKGROUPS ON DIAGNOSTIC GUIDELINES FOR AD

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<th>Concern regarding a change in cognition</th>
<th>Impairment in one or more cognitive domains</th>
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<tr>
<td><strong>A.</strong> Evidence of concern about a change in cognition, in comparison with the person’s previous level</td>
<td><strong>A.</strong> Objective evidence of impairment in one or more cognitive domains, greater than expected for age and education level</td>
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<td><strong>B.</strong> May come from the patient, a close contact of the patient, or a clinician observing the patient</td>
<td><strong>B.</strong> If repeated assessments are available, then a decline in performance should be evident over time</td>
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<td><strong>C.</strong> Nevertheless, they generally maintain their independence in daily life, with minimal assistance</td>
<td><strong>C.</strong> Cognitive domains include memory, executive function, attention, language, and visuospatial skills</td>
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<th>Preservation of independence in functional abilities</th>
<th>Not demented; only mild cognitive changes</th>
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<td><strong>A.</strong> People with MCI might have mild problems performing complex functional tasks, such as paying bills or shopping</td>
<td><strong>A.</strong> Cognitive changes should be sufficiently mild that there is no evidence of a significant impairment in social or occupational functioning</td>
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<td><strong>B.</strong> They may take more time, be less efficient, and make more errors at performing such activities than in the past</td>
<td><strong>B.</strong> If the patient has only been evaluated once, infer change from history and/or evidence that cognitive impairment is beyond what would be expected for the individual (factors may include age and education level)</td>
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<tr>
<td><strong>C.</strong> Nevertheless, they generally maintain their independence in daily life, with minimal assistance</td>
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Subjective cognitive complaints alone can result in overdiagnosis or underdiagnosis of MCI. Brief, validated cognitive assessment tools (see next page) are recommended for screening.
Examples of brief cognitive assessment tools that are validated for screening MCI:

- No tool has been confirmed to be superior to any others in diagnostic accuracy for MCI.
- Patients who test positive for MCI should have further formal assessment for this diagnosis.
- More in-depth cognitive testing such as neuropsychological testing with interpretation based on appropriate normative data may be recommended.

**MMSE**
- (Mini-Mental State Examination)
- Frequently studied in medical literature
- Effective at ruling out dementia in MCI and dementia studies
- Administration time: 10 minutes

**MoCA**
- (The Montreal Cognitive Assessment)
- Designed to detect and distinguish MCI from normal cognition
- Notable reliability, consistency, and content validity
- Administration time: 10 minutes

**GPCOG**
- (The General Practitioner Assessment of Cognition)
- Incorporates informant input
- Assesses 9 different cognitive items
- Administration time: 6 minutes

**Mini-Cog**
- Easy to administer to non-English speakers
- Less biased by low education and literacy than other tools
- Administration time: 3 minutes


For more information on biomarker assessment of MCI, refer to our Aβ Test Overview.

References:

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