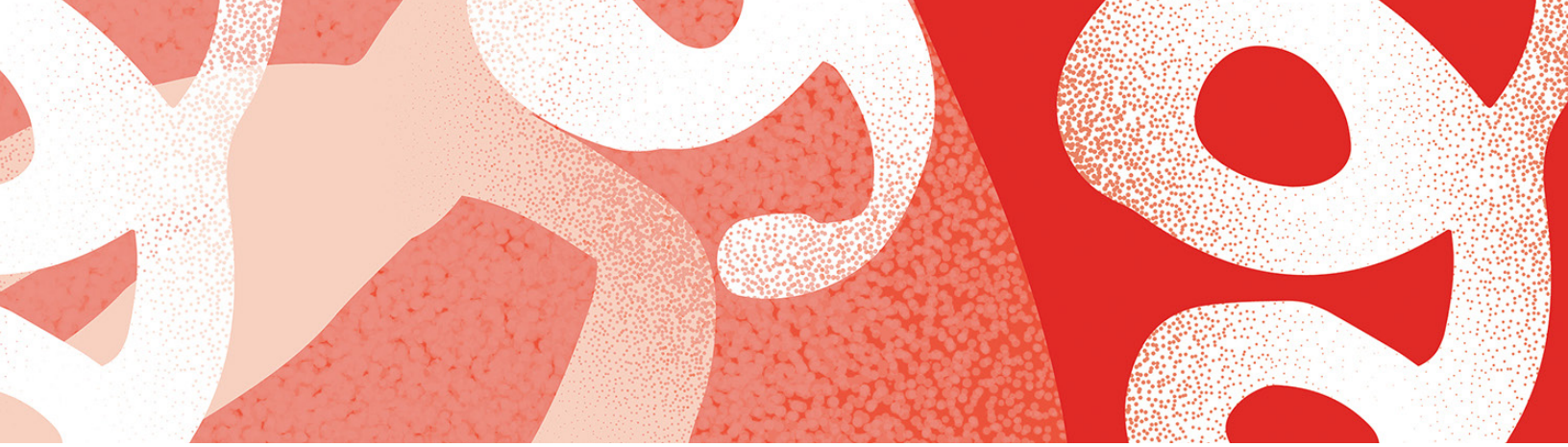

EARLY DETECTION OF **ALZHEIMER'S DISEASE** IS IMPORTANT[1,2]

Learn about the steps you can take to detect and refer your patients with suspected Alzheimer's disease (AD)[1,2]

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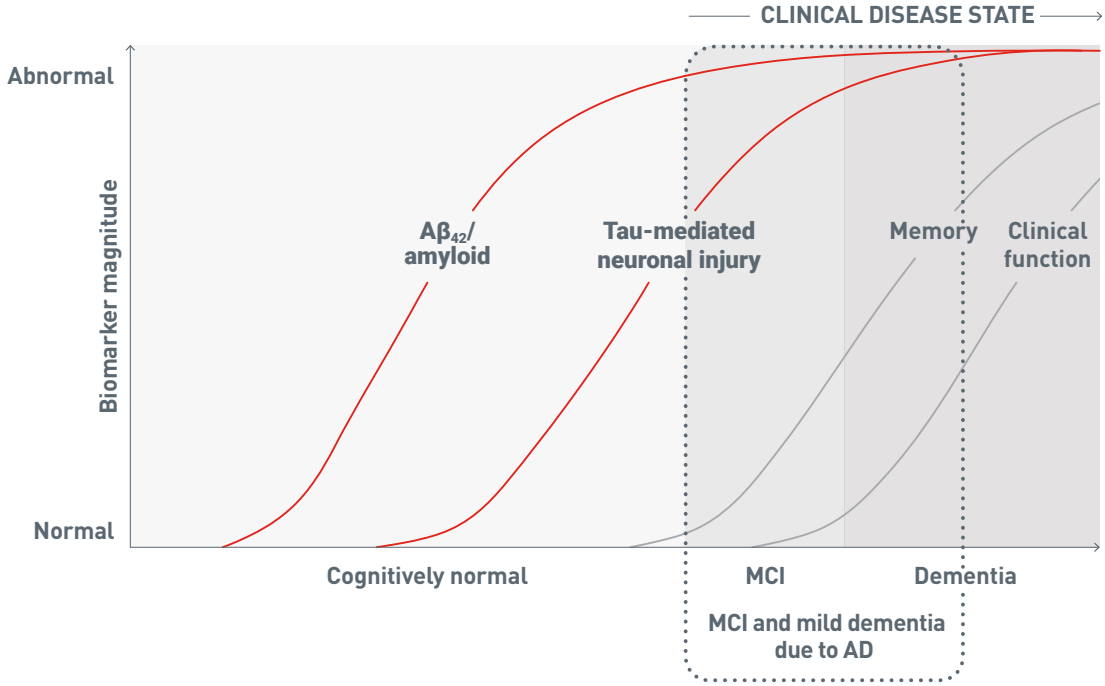
DETECTING MCI AND MILD DEMENTIA DUE TO AD MAY BE DIFFICULT[1]

Experts now believe that the pathophysiological changes of AD, such as the abnormal buildup of amyloid and subsequent accumulation of tau, may begin years before symptoms emerge[1]

BIOMARKER CHANGES IN AD[3]



Hypothetical model of dynamic biomarkers of the AD pathological cascade, beginning with the abnormal accumulation of amyloid and the subsequent accumulation of tau, which leads to MCI and eventually dementia.[3]

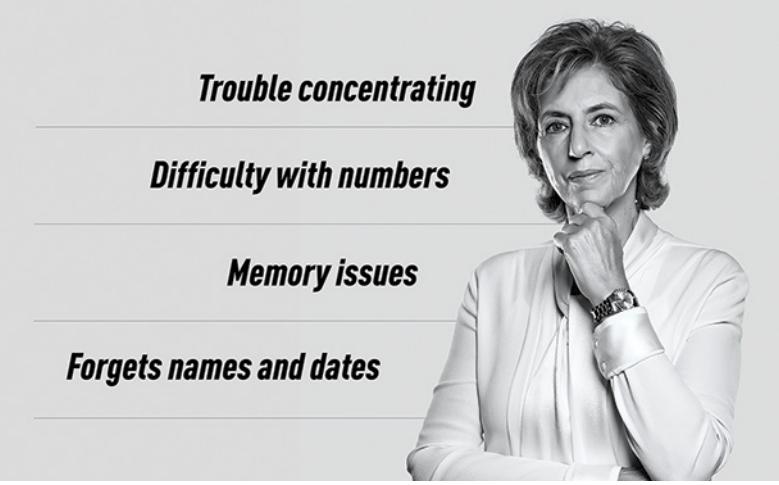
Modified from Jack CR Jr, Knopman DS, Jagust WJ, et al. Tracking pathophysiological processes in Alzheimer's disease: an updated hypothetical model of dynamic biomarkers. *Lancet Neurol*. 2013;12(2):207-216.

- Once symptoms present, significant levels of amyloid have already built up[1]
- Assessing cognitive impairment as soon as symptoms appear provides an opportunity to take action with earlier initiation of informed disease management[1]
- Timely referral to a specialist can enable earlier consideration of disease-modifying therapy (DMT) for patients who are in the early symptomatic stages of AD[1]

Aβ=amyloid beta; MCI=mild cognitive impairment.

EARLY DETECTION OF AD BEGINS WITH IDENTIFYING THE RIGHT PATIENT[1,2,4]

Consider referring patients in your practice for further diagnostic evaluation who[1,2,4]:



Not a real patient.

- Display subtle difficulties with memory, language, or thinking, and may downplay or dismiss concerns
- Continue to maintain independence despite mild cognitive symptoms, and report experiencing little to no impact on daily activities or functional abilities
- Are strongly motivated to understand the cause of their cognitive decline and are open to treatment

Patients who develop MCI due to AD typically exhibit early symptoms of short-term memory loss, which may gradually extend to other cognitive issues. However, despite the widespread occurrence of MCI, as many as 92% of individuals go unrecognized or are misdiagnosed in primary care settings[5,6]

SPOTTING THE SYMPTOMS IN THE EARLY STAGES OF AD[1]

Key symptoms to look out for[1]*

Cognition

Memory loss, word-finding difficulties

Examples: Forgetting appointments, misplacing items, trouble expressing words

Behavior

Social withdrawal, impulsivity

Examples: Avoiding social activities, poor judgment, inappropriate behavior

Psychological

Depression, mood changes, apathy

Examples: Loss of purpose, reduced initiative, personality shifts

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In addition to recognizing these symptoms, consider talking to your patient's loved ones about what your patient may be experiencing on a daily basis.[1]

*Does not include all symptoms.

Detecting symptoms early can help you refer your patients to a specialist for appropriate care[1]

DEFINING EARLY SYMPTOMATIC AD[1,7]

Characterizations of AD stages from the National Institute on Aging and the Alzheimer's Association (NIA-AA)[1,7]:

Stage 1

Biomarker evidence of AD in cognitively unimpaired individuals.[1,7]

Stage 2

Transitional decline, marked by the earliest detectable clinical symptoms that might be due to AD in individuals who are cognitively unimpaired.[1,7]

Stage 3—MCI DUE TO AD

Objective cognitive impairment but patient maintains independence and avoids significant functional loss.[1,7,8]

Stage 4—MILD DEMENTIA DUE TO AD

Progressive cognitive and mild functional impairment but patient maintains independence.[5,9]

Indicated population for amyloid-targeting therapies (ATTs) for early symptomatic AD.[1,10]

Stages 5 and 6

Loss of independence with progressively worse functional loss (progressing into moderate and severe dementia).[1,5,9]

AT ANNUAL WELLNESS VISITS, COGNITIVE SCREENING FOR PATIENTS AGED 65 YEARS AND OLDER CAN HELP YOU DETECT COGNITIVE IMPAIRMENT EARLY[11]

Tests sensitive to MCI and mild AD include*:

Mini-Cog©[1]
Duration: 2-3 minutes
Score: A score of ≤3 indicates possible cognitive impairment

GPCOG[12]
Duration: 4-5 minutes
Score: A patient score of <5 alone or a patient score of 5-8 with an informant score of ≥3 indicates possible cognitive impairment

MoCA[1]
Duration: 10 minutes
Score: A score of <26 indicates MCI or dementia; can be performed by clinicians upon completion of a 1-hour certification mandated by the MoCA Clinic and Institute

SLUMS[13]
Duration: 10 minutes
Score: Scores can differentiate between mild neurocognitive disorder or dementia; cutoffs differ depending on level of education

Dementia workup[1,14,15]

Following a positive screen or other signs of cognitive impairment:

- **Conduct** a thorough patient history and physical, including a neurological exam
- **Perform** diagnostics
  - Labs: CBC, electrolytes, BUN, Cr, Ca, LFTs, glucose, TSH, B12, folate; consider (per patient history) RPR or MHA-TP, HIV, heavy metals
  - Neuropsychological testing
  - Structural neuroimaging (CT, MRI)
- **Consider** probable neurodegenerative disorders, the most common being AD, Lewy body dementia/Parkinson's disease, or frontotemporal dementia. As appropriate, consider additional neuropsychological testing and/or biomarker testing

*The listed tests are representative only; alternative tools are available and can be used at the discretion of the clinician.

ADDITIONAL CLINICAL ASSESSMENTS TO CONSIDER WHEN REFERRING A PATIENT TO A NEUROLOGIST[1,16]

COGNITIVE ASSESSMENTS

Evaluate cognitive impairment or dementia with the help of cognitive assessments, such as:

- Mini-Cog©
- GPCOG
- MMSE
- MoCA
- SLUMS

ROUTINE BLOOD TESTS

- Standard CBC
- Standard CMP
- B12 vitamin panel
- Liver function
- Thyroid function
- Folate

WHEN REFERRING, PLEASE INCLUDE THE FOLLOWING INFORMATION

(if available)

- Patient family history
- MRI, blood panel, or previous test results
- Any genetic testing result biomarker test results†
- Cognitive assessments and any other relevant test results

†DIAGNOSTIC LAB WORK

- AD-specific blood-based biomarker

If your patient shows signs of cognitive impairment during a routine visit, Medicare covers a separate visit to more thoroughly assess your patient's cognitive function and develop a care plan[11]

BUN=blood urea nitrogen; Ca=calcium; CBC=complete blood count; CMP=comprehensive metabolic panel; Cr=creatinine; CT=computed tomography; GPCOG=General Practitioner Assessment of Cognition; HIV=human immunodeficiency virus; LFT=liver function test; MHA-TP=microhemagglutination assay for Treponema pallidum antibodies; MMSE=Mini-Mental State Examination; MoCA=Montreal Cognitive Assessment; MRI=magnetic resonance imaging; RPR=rapid plasma reagin; SLUMS=Saint Louis University Mental Status; TSH=thyroid stimulating hormone.

DETECT AND REFER YOUR PATIENTS WITH MCI EARLY[1]

Early detection of MCI may help change the trajectory of care for your patients. Using validated tools during annual wellness visits may help[1,2,4]:

- Identify cognitive impairment early
- Inform specialist referrals and care interventions
- Support patients through early and proactive decision-making

Help your patients take the first step by screening today

1. Porsteinsson AP, Isaacson RS, Knox S, et al. Diagnosis of early Alzheimer's disease: clinical practice in 2021. *J Prev Alzheimers Dis*. 2021;8:371-386. **2.** Sabbagh MN, Lue LF, Fayard D, et al. Increasing precision of clinical diagnosis of Alzheimer's disease using a combined algorithm incorporating clinical and novel biomarker data. *Neurol Ther*. 2017;6(suppl 1):S83-S95. **3.** Jack CR Jr, Knopman DS, Jagust WJ, et al. Tracking pathophysiological processes in Alzheimer's disease: an updated hypothetical model of dynamic biomarkers. *Lancet Neurol*. 2013;12(2):207-216. **4.** McDade E, Bednar MM, Brashear HR, et al. The pathway to secondary prevention of Alzheimer's disease. *Alzheimers Dement (N Y)*. 2020;6(1):e12069. doi:10.1002/trc2.12069 **5.** Alzheimer's Association. 2024 Alzheimer's disease facts and figures. *Alzheimers Dement*. 2024;20(5):3708-3821. **6.** Mielke MM, Anderson M, Ashford JW, et al. Recommendations for clinical implementation of blood-based biomarkers for Alzheimer's disease. *Alzheimers Dement*. Published online October 1, 2024. doi:10.1002/alz.14184 **7.** Jack CR Jr, Andrews JS, Beach TG, et al. Revised criteria for diagnosis and staging of Alzheimer's disease: Alzheimer's Association Workgroup. *Alzheimers Dement*. 2024;20(8):5143-5169. **8.** Albert MS, DeKosky ST, Dickson D, et al. The diagnosis of mild cognitive impairment due to Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. *Alzheimers Dement*. 2011;7(3):270-279. **9.** National Institutes of Health, National Institute on Aging. What are the signs of Alzheimer's disease? Accessed November 21, 2022. https://www.nia.nih.gov/health/what-are-signs-alzheimers-disease **10.** Iwatsubo T, Irizarry MC, Lewcock JW, et al. Alzheimer's targeted treatments: focus on amyloid and inflammation. *J Neurosci*. 2023;43(47):7894-7898. **11.** Medicare.gov. Yearly "wellness" visits. Accessed December 10, 2024. https://www.medicare.gov/coverage/yearly-wellness-visits **12.** Mast BT, Gerstenecker A. Screening instruments and brief batteries for dementia. In: Lichtenberg PA, ed. *Handbook of Assessment in Clinical Gerontology*. Elsevier Inc; 2010:503-530. **13.** Tariq SH, Tumosa N, Chibnall JT, et al. Comparison of the Saint Louis University Mental Status examination and the Mini-Mental State Examination for detecting dementia and mild neurocognitive disorder—a pilot study. *Am J Geriatr Psychiatry*. 2006;14(11):900-910. **14.** Scharre DW, Trzepacz PT. Evaluation of cognitive impairment in older adults. *Focus*. 2013;11:482-500. **15.** Act on Alzheimer's. Clinical provider practice tool. Revised June 22, 2016. Accessed April 13, 2022. http://www.actonalz.org/sites/default/files/documents/ACT-Provider-ClinicalPracticeTool.pdf **16.** Cordell CB, Borson S, Boustani M, et al. Alzheimer's Association recommendations for operationalizing the detection of cognitive impairment during the Medicare Annual Wellness Visit in a primary care setting. *Alzheimers Dement*. 2013;9(2):141-150.

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