

# Using a Stepwise Approach to Alzheimer's Disease (AD) Diagnosis

AD diagnosis is typically made 2 to 3 years after symptom onset<sup>1,2</sup>

Medical History <sup>3</sup>	Aggregate Risk Analysis or CAIDE score <sup>3,4</sup>	Cognitive Testing <sup>3</sup>	Physical Exam and Lab Testing <sup>3,5</sup>	Potential Biomarkers <sup>3,5,6</sup>	Diagnostic Criteria <sup>3</sup>
<ul style="list-style-type: none"><li>• Symptoms involve 2 cognitive domains</li><li>• Evidence of a longitudinal process</li><li>• Informant information</li><li>• Informant: IQCODE, AD8, AQ, GPCOG,</li></ul>	<ul style="list-style-type: none"><li>• Age</li><li>• Family history</li><li>• History of head injury</li><li>• Education</li><li>• Sex</li><li>• Cardiovascular risk factors</li></ul>	<ul style="list-style-type: none"><li>• GPCOG</li><li>• MIS</li><li>• MMSE</li><li>• MoCA</li><li>• Mini-COG</li><li>• SBT</li><li>• SLUMS</li></ul>	<ul style="list-style-type: none"><li>• Evaluate comorbidities</li><li>• Review medication</li><li>• B12, TSH</li><li>• MRI, if warranted</li></ul>	<ul style="list-style-type: none"><li>• CSF A<math>\beta</math>, tau, p-tau</li><li>• Amyloid PET scan</li><li>• Tau PET scan</li><li>• Genetic testing</li><li>• Plasma <math>\beta</math>, tau, p-tau</li></ul>	<ul style="list-style-type: none"><li>• IWG criteria</li></ul>

IQCODE, The Informant Questionnaire on Cognitive Decline in the Elderly; AD8, Ascertain Dementia 8-Item Informant Questionnaire; AQ, Alzheimer's Questionnaire; GPCOG, General Practitioner Assessment of Cognition; CAIDE, Cardiovascular Risk Factors, Aging and Dementia; MIS, Memory Impairment Screen; MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment; Mini-COG, Mini-Cognitive Assessment Instrument Test; SBT, Short Blessed Test; SLUMS, Saint Louis University Mental Status; MRI, magnetic resonance imaging; CSF, cerebral spinal fluid; PET, positron emission tomography; IWG, International Working Group.

1. Balasa M et al. *Neurology*. 2011;76:1720-1725; 2. Boise L et al. *Gerontologist*. 1999;39:457-464; 3. Sabbagh MN et al. *Neurol Ther*. 2017;6:83-95; 4. Kivipelto M et al. *Lancet Neurol*. 2006;5:735-741;

5. Turner RS et al. *Front Neurol*. 2020;11:496; 6. Iaccarino L et al. *J Prev Alzheimers Dis*. 2023;10:426-442.

# A Clinician Has a Clinical and Ethical Responsibility to Accurately Assess the Decision-Making Capacity of a Patient<sup>1</sup>



## Capacity<sup>1</sup>

- A person's ability to make a particular decision at a specific time or in a specific situation
- **Four decision-making abilities** needed for capacity: understanding, appreciation, reasoning, and expressing a choice
- Clinicians familiar with a patient can make a capacity assessment
- According to law, all adults have capacity unless there is evidence to the contrary
- Capacity is required for valid informed consent
- A durable power of attorney for health care designates a person (agent, proxy), to make health care decisions when a person with dementia can no longer do so<sup>2</sup>

## Competency:<sup>3</sup>

- Legal capacity determined in court
- Varies by country

# Providing and Obtaining Informed Consent for Genetic Tests Can Be Challenging, Especially in People with Early AD or MCI

## Genetic test limitations that may affect informed consent:<sup>1</sup>

- The specific gene may not yet be known
- All pathogenic gene changes may not yet be identified
- Knowledge about the clinical significance of the variant may be limited
- Variants of uncertain significance may be identified

## Factors can influence the informed consent process:<sup>1</sup>

- Patients' levels of health literacy and psychosocial stress
- The complexity of information conveyed
- Time limitations for clinic visits



## Tests for decisional capability<sup>2,3</sup>

Assessment of the Capacity for Everyday Decision-Making (ACED)  
MacArthur Capacity Assessment Tool for Treatment (MacCAT-T)



**Online self-test** for patients to self-assess whether to get ApoE testing:  
<https://genetestornot.org>

MCI, mild cognitive impairment.

1. Roberts JS et al. *Neurobiol Dis.* 2020;141:104871; 2. Grisso T et al. *Assessing Competence to Consent to Treatment: A Guide for Physicians and Other Health Professionals.* Oxford University Press; 1998; 3. Lai JM et al. *Am J Geriatr Psychiatry.* 2008;16:693-696.

# Expert Insights: Jan (Early AD)



- Jan has a diagnosis of early AD (mild dementia)
- Low CSF A $\beta$ 42 is consistent with CNS amyloid pathology and provides biomarker support for the diagnosis
- The **best answer is A** – check Jan’s decisional capacity to provide consent for testing
  - Recent medical history suggests questionable decisional capacity