Testing to help streamline management of cognitively impaired patients

Blood biomarker testing can provide robust insights leading to more effective care

Primary care is the first line of defense against cognitive decline, including Alzheimer's disease (AD). **Integrating blood-based biomarker testing with existing cognitive tools** can provide a better understanding of the source of cognitive impairment in your patients.

Considerations for testing

The following indicators, aside from family history, help determine who might benefit from assessment.[1]

Age of 55 years or older

Symptoms of cognitive impairment, including impaired memory or change of thinking

Blood biomarkers can balance clinical evaluations with biological data

Measuring multiple biomarkers together provides reliable, quantifiable evidence of amyloid positivity. Results align with established methods such as PET scans, supporting more accessible evaluation of symptoms.[2]

AD-Detect™ ABeta 42/40 and p-tau217 Evaluation

Determine the likelihood of amyloid pathology related to Alzheimer's disease in patients with cognitive symptoms.

Meets established parameters for confirmatory testing[3,4]

- Evaluated at **91% sensitivity and 91% specificity** with 15% indeterminate rate
- Compared to amyloid PET scan

AD-Detect Likelihood Score clearly streamlines biomarker values into a single, validated interpretation

- High Likelihood, Indeterminate, and Low Likelihood of amyloid pathology

An integrated approach to AD evaluation

Combining cognitive assessments and insights from blood biomarker testing allows you to balance clinical observations with objective data. A single modality alone can misclassify or miss AD, leading to inappropriate referrals or resource strain.

Blood biomarker testing can provide clarity when symptoms alone cannot

Clinical symptoms alone can be difficult to interpret since conditions like depression, thyroid disorders, or other secondary causes of cognitive decline may mimic or complicate Alzheimer's

Vascular and metabolic conditions such as diabetes, obesity, liver disease, or chronic kidney disease can **independently cause or worsen cognitive impairment,** making the clinical picture more complex

Evaluate the source of cognitive symptoms with blood biomarker testing for more appropriate referrals, timely interventions, and improved patient outcomes.

Biomarker testing can uncover biologic changes occurring in the brain

Once cognitive impairment is significant enough to be observed through clinical assessment tools such as mini-mental state examinations (MMSE) or other cognitive questionnaires, AD biomarkers may have already been increasing.

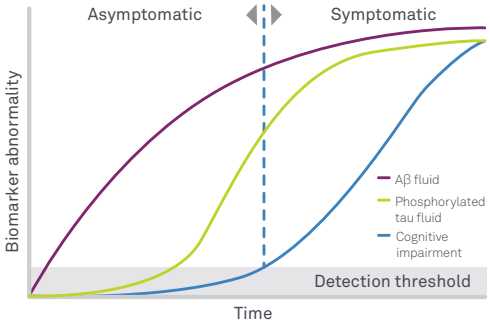

Chart adapted from Jack CR Jr. *Lancet Neurol.* 2022;21:800-809. doi:10.1016/S1474-4422(22)00298-8 and Long et al, *Cell*, 2019; 179(2):312-339. doi:10.1016/j.cell.2019.09.001

Blood-biomarkers streamline the care pathway

Impact on referrals and diagnosis

More appropriate consults: Instead of waiting for a specialist referral and then waiting for further testing, the patient already has key information, making their first visit with the specialist more efficient.

Streamlined information: When a patient sees a neurologist with biomarker results, this provides the specialist with vital data, helping to guide diagnostic decisions, and confirm or rule out conditions faster and could lead to a more impactful targeted treatment plan.

Reduced need for other tests: For some, biomarker tests may reduce the need for more expensive or time-consuming diagnostic tools like spinal taps or PET scans, shortening the path to a diagnosis.*

*The choice to do further assessments is that of the patient in consultation with their health care provider.

Collection instructions and AD-Detect portfolio details

Collection details	AD-Detect™ ABeta 42/40 and p-tau217 Evaluation		
Test code	14258	**Transport temperature**	Frozen
Turnaround time	4-6 days	**Room temperature**	Unacceptable
Specimen	Plasma	**Refrigerated**	72 hours
Volume	2 mL preferred	**Frozen**	28 days
Collection instructions	Collect blood into a K2 EDTA lavender-top plasma tube and mix by inversion 10 times. Centrifuge within 1 hour of collection. Carefully transfer plasma into 2 separate polypropylene tubes 1 mL each. **Do not transfer to conical tubes. Transport frozen.**		

Components of panels can be ordered separately. For more information on these tests, including detailed collection and transport requirements, visit TestDirectory.QuestDiagnostics.com. Tests are available to physicians throughout the US with the exception of New York state, where Quest plans to apply for approval to offer the test clinically.

Test code	Test name	Test use
14258	**AD-Detect™ ABeta 42/40 and p-tau217 Evaluation**	Combined amyloid 42/40 and p-tau217 plasma scores assess the likelihood of amyloid pathology.
11786	**Quest AD-Detect® Beta-Amyloid 42/40 Ratio**	Detect Aβ levels, one of the earliest biomarkers associated with AD risk.[5]
13825	**Quest AD-Detect® Phosphorylated tau217 (p-tau217)**	Determine levels of p-tau217, a biomarker that can differentiate AD from other neurocognitive diseases.
13690	**Quest AD-Detect® Phosphorylated tau181 (p-tau181)**	Uncover the presence of p-tau181, a biomarker involved in the diagnosis and staging of AD.[6]
12563	**Quest AD-Detect® Apolipoprotein E (ApoE) Isoform**	Assess ApoE isoforms to help determine hereditary AD risk.[5]
17970	**AD-Detect™ p-tau217/Beta Amyloid 42 Ratio Lumipulse®**	FDA-cleared blood test to assess risk of amyloid pathology in patients aged 55+ with cognitive decline in a specialized setting.

See how our Alzheimer's disease and dementia lab tests provide objective data to help **clarify the source of symptoms at QuestADrisk.com**

References: 1. Yu J-T, Xu W, Tan C-C, et al. Evidence-based prevention of Alzheimer's disease: systematic review and meta-analysis of 243 observational prospective studies and 153 randomised controlled trials. *J Neurol Neurosurg Psychiatry.* 2020;91(11):1201-1209. doi:10.1136/jnnp-2019-321913 **2.** Janelidze S, Palmqvist S, Leuzy A, et al. Detecting amyloid positivity in early Alzheimer's disease using combinations of plasma Aβ42/Aβ40 and p-tau. *Alzheimers Dement.* 2022;18(2):283-293. doi:10.1002/alz.12395 **3.** Weber DM, Stroh MA, Taylor SW, et al. Development and clinical validation of blood-based multibiomarker models for the evaluation of brain amyloid pathology. *Neurol Clin Pract.* 2025;15(6):e200546. doi:10.1212/CPJ.0000000000200546 **4.** Schindler SE, Galasko D, Pereira AC, et al. Acceptable performance of blood biomarker tests of amyloid pathology—recommendations from the Global CEO Initiative on Alzheimer's Disease. *Nat Rev Neurol.* 2024;20(7):426-439. doi:10.1038/s41582-024-00977-5 **5.** Nakamura A, Kaneko N, Villemagne V, et al. High performance plasma amyloid-B biomarkers for Alzheimer's disease. *Nature.* 2018;554(7691):249-254. doi:10.1038/nature25456 **6.** Brickman AM, Manly JJ, Honig LS, et al. Plasma p-tau181, p-tau217, and other blood-based Alzheimer's disease biomarkers in a multi-ethnic, community study. *Alzheimers Dement.* 2021;17(8):1353-1364. doi:10.1002/alz.12301

Test codes may vary by location. Please contact your local laboratory for more information.

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