

Real-world insights into clinician involvement and testing approaches for mild cognitive impairment and Alzheimer’s



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OBJECTIVE

To characterize real-world diagnostic pathways and biomarker testing utilization among patients with MCI and mild AD dementia across primary and specialist care settings prior to the emergence of anti-amyloid therapies and expanded biomarker use.

CONCLUSIONS

Utilization of biomarker testing is low and inconsistent in real-world clinical practice, with BBM, CSF testing and amyloid PET conducted for 7.1%, 10.6% and 10.3% of patients with MCI, and 6.8%, 6.2% and 1.4% of patients with AD with mild dementia diagnosed by a specialist, respectively. For those diagnosed in primary care, this testing was conducted for 5.8%, 5.2% and 5.9% of patients with MCI and 4.5%, 0.4%, and 0.8% of patients with AD with mild dementia.

Patients typically first present to PCPs and most PCPs were comfortable using BBMs to diagnose MCI and AD with mild dementia. However, approximately only half of specialists were comfortable with PCPs using BBMs to diagnose MCI, and two-thirds to diagnose AD with mild dementia. Addressing the concerns of those not comfortable may enable PCPs to play a more active role in the early detection of AD.

Streamlining the diagnostic process, through greater biomarker utilization and an expanded role for PCPs in early detection is essential to maximize access to AATs, slow disease progression and preserve patient independence.

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Introduction

- Diagnosis of Alzheimer’s disease (AD) has traditionally relied upon clinical presentation and neuropsychological assessments, such as the Mini-Mental State Examination (MMSE) and Montreal Cognitive Assessment (MoCA). However, their sensitivity in identifying the earlier stages of AD is limited.¹
- Conventional biomarker testing, such as cerebrospinal fluid (CSF) testing and positron emission tomography (PET), offers high diagnostic accuracy but utilization outside of specialist settings may be limited by invasiveness, cost and restricted access.²
- Recently approved blood-based biomarker (BBM) tests can provide a more cost-effective, accessible, and less invasive alternative to traditional biomarker assessments, and have the potential to support earlier biological confirmation of AD and improve diagnostic pathways.^{3,4}
- While biomarkers are increasingly available, their real-world use and integration across care settings remain unclear.
- Improving detection of AD would allow for earlier initiation of anti-amyloid therapies (AAT) for eligible patients and may ultimately optimize treatment benefits.

Methods

- Data were drawn from the Adelphi Real World AD Disease Specific Programme™, a cross-sectional survey of physicians and their patients with mild cognitive impairment (MCI) and AD with mild dementia in the United States between December 2022 and September 2023. The DSP methodology has been previously described^{5,6}, validated⁷, and demonstrated to be consistent over time.⁸
- Primary care physicians (PCPs; inclusive of family/general practitioners and internists) and specialists (inclusive of neurologists, psychiatrists and geriatricians) first completed an attitudinal survey. PCPs self-reported comfort level using BBMs to diagnose patients with MCI and AD with mild dementia. Specialists reported their comfort level with PCPs using BBMs for these diagnoses, and the average time from referral to testing with CSF, amyloid PET and BBMs.
- All physicians reported patient demographics and diagnostic testing for up to nine consecutively consulting patients with MCI or AD, followed by approximately one patient with a biomarker-confirmed (CSF or amyloid/tau PET scan) MCI due to AD diagnosis. The current analysis focuses on patients with MCI or AD with mild dementia only. Disease severity was defined using the patients’ diagnostic label and physician-reported severity.
- Patients with MCI included those with amnesic/non-amnesic MCI where AD was the suspected cause, pre-dementia and prodromal AD; AD with mild dementia included those with AD, early onset AD and mixed dementia with ‘mild’ severity.
- Entropy balancing was used to generate weights for the enriched sample of patients with a biomarker confirmed MCI due to AD diagnosis, such that the weighted confounder percents of whether a patient was MCI at diagnosis and whether a patient received a CSF/PET test matched the main sample group.

Results

- Overall, 191 physicians (83 PCPs, 108 specialists) reported data on 947 patients (626 with MCI, 321 with AD with mild dementia at diagnosis). On average, patients had a mean (standard deviation; SD) age of 74.4 (8.4) years, 53.2% were male, and 74.0% were White. Patient demographics are shown in **Table 1**.

Table 1: Patient demographics

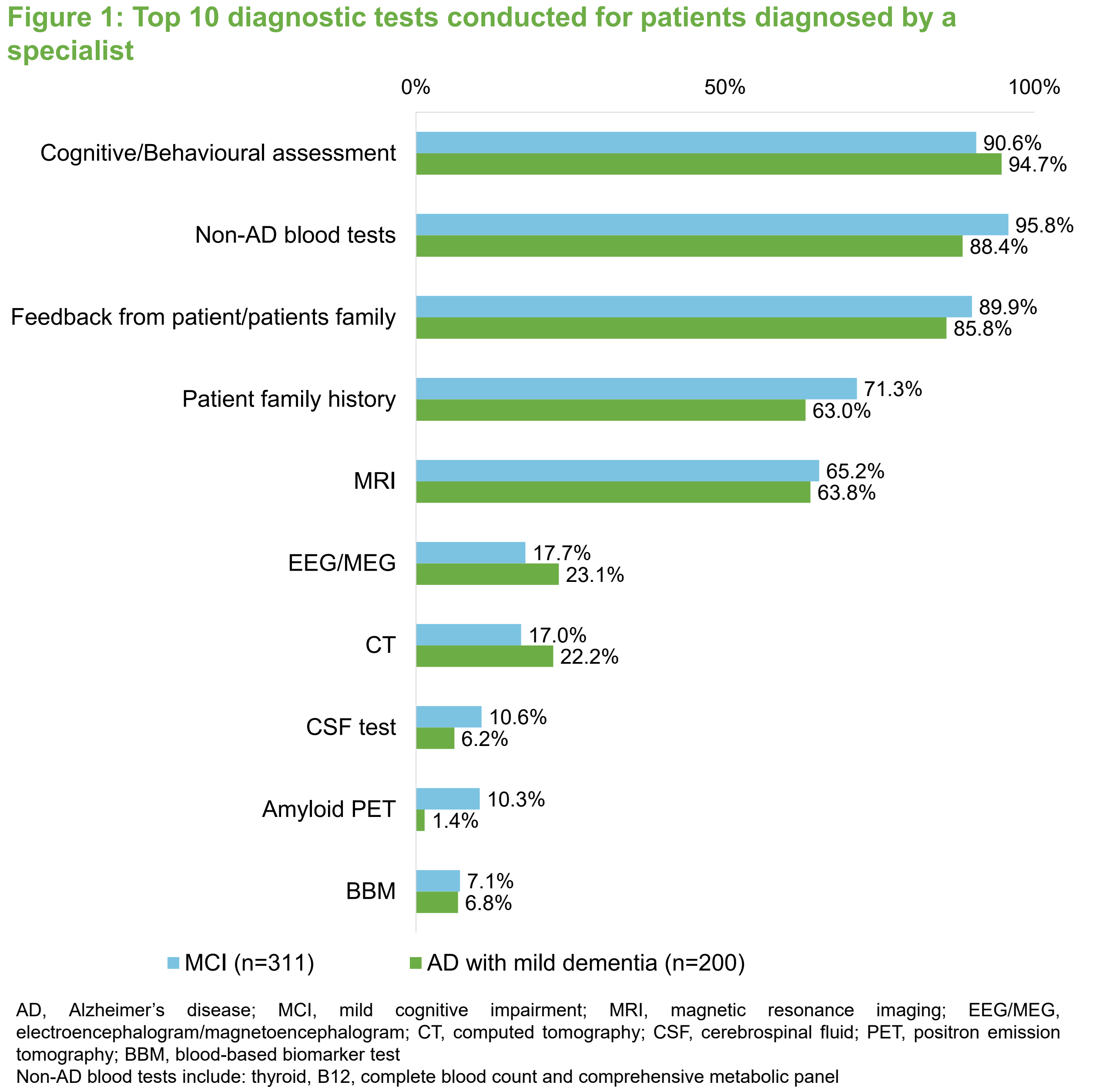
	Overall	Patients with MCI	Patients with AD with mild dementia
Patient age, mean (SD)	n=947	n = 626	n = 321
Years	74.4 (8.40)	73.6 (8.4)	76.0 (8.2)
Patient sex, n (%)	n=947	n=626	n=321
Male	504 (53.2)	347 (55.4)	157 (48.9)
Female	441 (46.6)	277 (44.2)	164 (51.1)
Intersex	2 (0.2)	2 (0.3)	0 (0.0)
Patient ethnicity, n (%)	n=947	n=626	n=321
White	701 (74.0)	471 (75.2)	230 (71.7)
African American	150 (15.8)	99 (15.8)	51 (15.9)
Native American	36 (3.8)	21 (3.4)	15 (4.7)
Asian	47 (5.0)	26 (4.1)	21 (6.6)
Middle Eastern or North African	9 (1.0)	5 (0.8)	4 (1.2)
Other	9 (1.0)	7 (1.1)	2 (0.6)
Hispanic/Latin/Spanish heritage, n (%)	n=933	n=618	n=315
Yes	75 (8.0)	45 (7.3)	30 (9.5)

SD, standard deviation; MCI, mild cognitive impairment; AD, Alzheimer’s disease

- Most patients (74.5%) first consulted a PCP, with 56.5% referred to another physician before being diagnosed by a neurologist (71.5%).
- Patients who consulted with and were diagnosed in primary care (n=280) were commonly diagnosed using cognitive / behaviour assessments (90.1%), feedback from patient and family (89.7%) and non-AD blood test (88.1%). Few patients (4.8%) received a BBM test.
- For patients diagnosed by a specialist, 6.8% of patients received an amyloid PET scan (10.3% MCI; 1.4% AD with mild dementia), 8.9% received a CSF test (10.6%; 6.2%) and 7.0% received a BBM test (7.1% MCI; 6.8% AD with mild dementia).

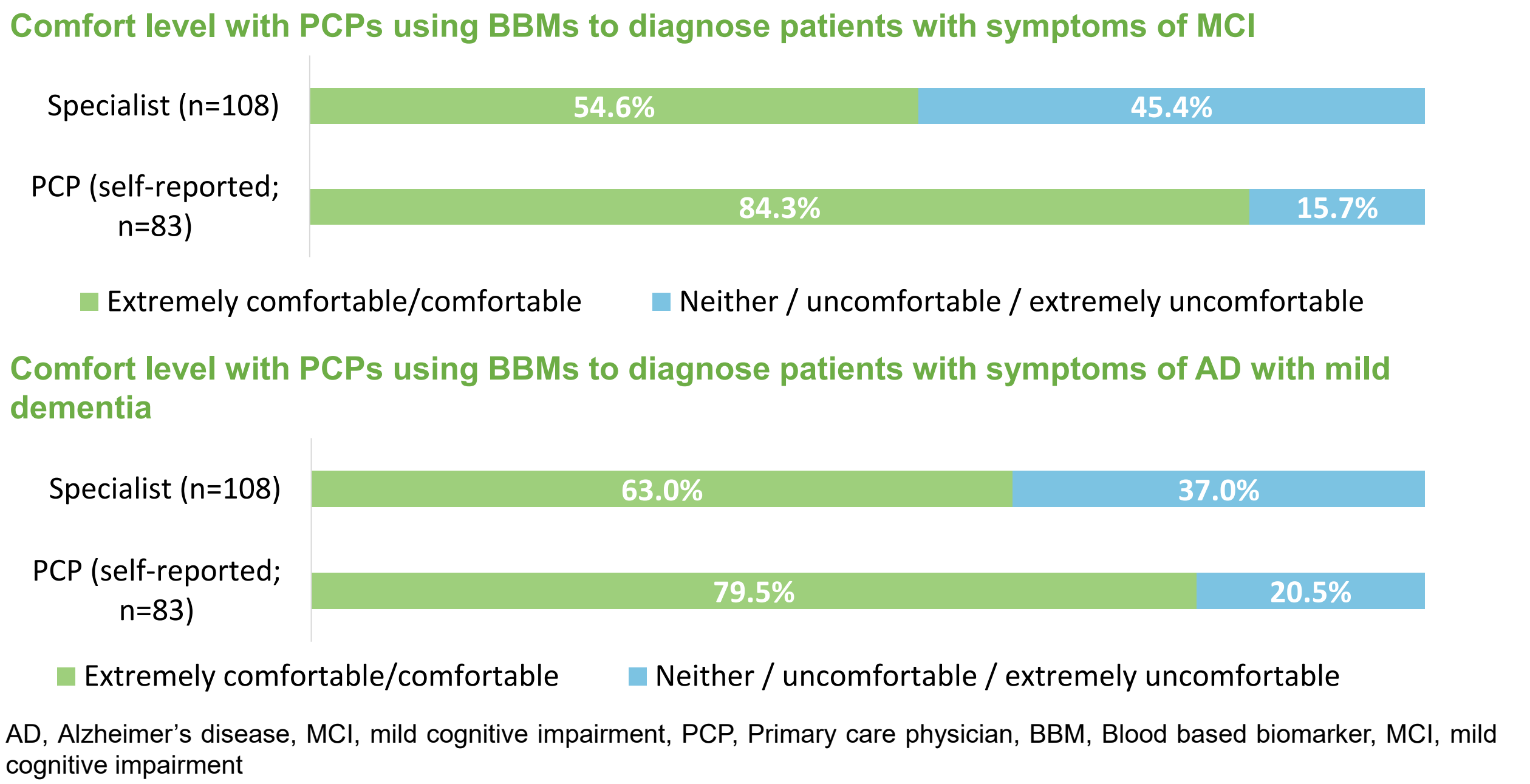
Results continued

- Tests/assessments conducted to aid diagnosis are shown in **Figure 1**.



- From time of referral, specialists reported a mean of 19.3 (18.5) days for patients to receive a CSF test, 30.7 (23.3) days for an amyloid PET and 14.0 (18.9) days for a BBM.
- Most PCPs (84.3%) reported they would be comfortable/extremely comfortable using BBMs to aid a diagnosis for patients with MCI, whilst 54.6% of specialists would be comfortable/extremely comfortable with PCPs using these tests. PCP- and specialist-reported comfort with using BBMs in diagnosis are shown in **Figure 2**.

Figure 2: Primary care physician and specialist-reported comfort level with PCP use of BBMs to diagnose patients



Limitations

- The DSP is based on a pseudo-random sampling of physicians or patients. Cause and effect cannot be determined due to the cross-sectional methodology.
- While minimal inclusion criteria governed the selection of the participating physicians, participation is influenced by willingness to complete the survey. Patients were actively consulting, which may limit the generalizability of the results to all patients with AD.
- Similarly, it is also important to note that practice habits vary within and across different specialties
- Lecanemab and donanemab received FDA approval in January 2023 and July 2024, respectively, during or after data collection; the first BBM received FDA approval in May 2025, after data collection, and there has been increasing evidence supporting the reliability and accuracy of these types of tests. Further research is being conducted to understand how these approvals have impacted diagnostic practice and physician attitudes in 2026.

1. D'Ignazio et al., Front. Psychol, 2025; 16.; 2. Snider et al., Alzheimer’s Dementia, 2025; 11(2).; 3. Liu et al., Health Aff Sch., 2024; 2(7).; 4. Hampel et al., Neuron, 2023; 111(18): 2781-2799.; 5. Anderson et al., Curr Med Res, 2008; Med Res, 2008; 24(11):3063-3072.; 6. Anderson et al., Curr Med Res, 2023; 39:1707-1715.; 7. Babineaux et al., BMJ Open, 2016; 6(8).; 8. Higgins et al., Diabetes, Metab Syndr Obes, 2016, 9:371-380.