Training Resource Guide

Davos Alzheimer's Collaborative

About This Resource

What is this resource guide?

This educational resource provides a high-level overview of key concepts about dementia, Alzheimer's disease, and common steps along the diagnostic pathway. The summary and resources provided should be leveraged when **developing training resources for brain health navigators or other frontline providers**. This resource will be a working document and regularly updated as more information and resources become available.

Who is this resource for?

This tool is intended to be used by brain health navigators and/or primary care providers managing care for patients at risk, or with symptoms of, Alzheimer's disease or related dementias.

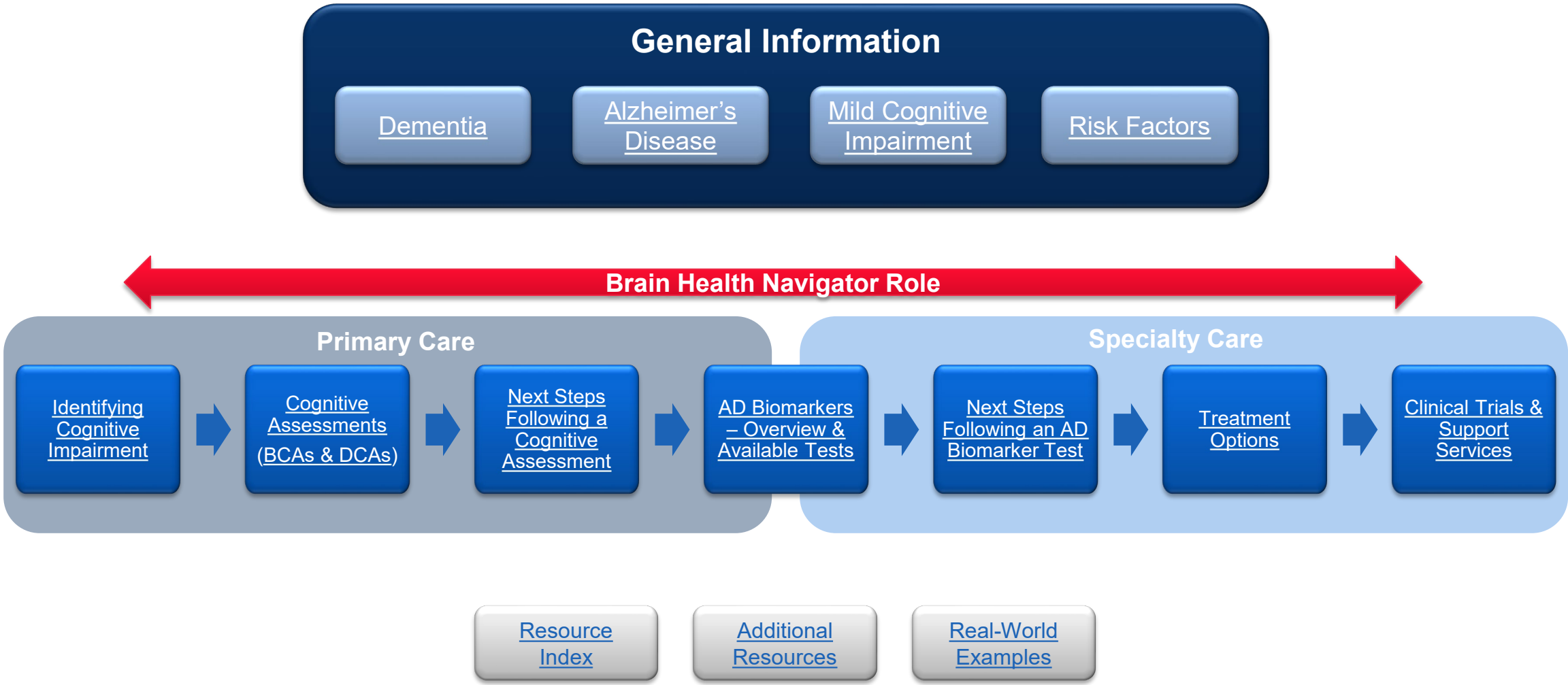
How should this resource be used?

This guide should be used as a starting point for understanding key concepts about Alzheimer's disease and the diagnostic pathway. This resource and supplemental real-world clinical examples may be useful to other healthcare systems implementing early detection or care navigator programs that are interested in developing their own training resources and education tools.

What this tool is not

This is not an exhaustive list of all resources or diagnostic steps in managing care for patients with Alzheimer's disease. **It does not provide clinical guidance**.

Resources Across the Diagnostic Pathway



General Information – Dementia

Definition, Types

Dementia is an umbrella term used to describe a range of neurological conditions affecting the brain that worsen over time. Symptoms include loss of memory, thinking, and social abilities severely enough so as to interfere with daily functioning. Some people with dementia cannot regulate emotions and other behaviors, and their personality may change. Dementia is not a specific disease but rather a general term for impaired cognitive function.

About one-third of all people aged 85 years or older may have some form of dementia, but dementia is not a normal part of aging.

Types of Dementia:

- Alzheimer's disease
- Vascular dementia
- Lewy body dementia
- Frontotemporal dementia
- Mixed dementia

There are many other conditions that can cause symptoms of cognitive impairment but that aren't dementia, including some that are reversible, such as thyroid problems and vitamin deficiencies.

Resources:

- https://www.nia.nih.gov/health/alzheimers-and-dementia/understanding-different-types-dementia
- https://www.nia.nih.gov/health/alzheimers-and-dementia/dementia-umbrella-term
- https://www.alz.org/alzheimers-dementia/what-is-dementia
- [VIDEO] NIA - What is Dementia?
- https://www.alzheimers.gov/alzheimers-dementias/what-is-dementia
- https://www.alzint.org/about/symptoms-of-dementia/

General Information – Alzheimer's Disease

Disease Overview, Symptoms, Pathology

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Alzheimer's disease (AD) is a progressive neurodegenerative disorder that gradually destroys memory, thinking skills, and eventually the ability to carry out simple tasks. It's the most common cause of dementia, accounting for 60% to 80% of all dementia cases. AD develops gradually, often starting with mild memory problems that progress over years. While age is the greatest risk factor (most cases occur in people aged >65 years of age), it's not a normal part of aging. Genetic factors also play a role, particularly in early-onset cases. There is no cure for AD, even though some medications can temporarily improve or stabilize symptoms. Research continues to advance our understanding of the disease mechanisms and potential treatments targeting the underlying pathology of AD, including new innovations to help diagnose patients earlier.

Pathological Mechanisms:

AD involves the abnormal buildup of proteins in and around brain cells. Two key proteins:

1. Amyloid-beta forms plaques outside neurons
2. Tau forms neurofibrillary tangles inside neurons

Protein accumulations begin 10-20 years before clinical symptoms appear; they disrupt communication between neurons, eventually leading to cell death. These pathological changes can trigger a neuroinflammatory response, further contributing to disease progression. AD typically begins in regions of the brain involved in memory before spreading to areas responsible for language, reasoning, and behavior.

Resources:

- https://www.alzheimers.gov/alzheimers-dementias/alzheimers-disease
- [VIDEO] NIA - How Alzheimer's Changes the Brain
- [VIDEO] Alzheimer's Disease Pathology
- https://www.nia.nih.gov/health/alzheimers-and-dementia/alzheimers-disease-fact-sheet
- https://www.alz.org/alzheimers-dementia/what-is-alzheimers
- https://www.youtube.com/watch?v=qYBS0lodl0w
- CEOi Flyer - Alzheimer's Disease Pathology

General Information – Mild Cognitive Impairment

Symptoms, Types

Mild Cognitive Impairment (MCI) is a clinical condition characterized by cognitive decline that is measurable on cognitive testing, but not severe enough to meet criteria for dementia diagnosis. MCI involves impairment in one or more cognitive domains such as memory, language, executive function, attention, or visuospatial skills. Despite these deficits, individuals with MCI maintain largely independent daily functioning, although complex tasks may require more effort than before.

Signs of MCI may include:

- Losing things often
- Forgetting to go to events or appointments
- Having more trouble coming up with words than other people of the same age

Two main types of MCI:

1. Amnestic MCI: primarily affects memory and carries higher risk of progressing to AD
2. Non-amnestic MCI: affects other cognitive domains (eg, sound decision-making, judging the time or sequence of steps required to complete a complex task) and may progress to other forms of dementia.

MCI has significant clinical implications. While 10% to 15% of people with MCI progress to dementia annually (compared to 1% to 2% in the general elderly population), progression is not inevitable. Some individuals remain stable or even revert to normal cognition, making MCI an important window for potential early intervention.

Resources:

- https://www.alzheimers.gov/alzheimers-dementias/mild-cognitive-impairment
- https://www.alz.org/alzheimers-dementia/what-is-dementia/related_conditions/mild-cognitive-impairment
- https://www.nia.nih.gov/health/memory-loss-and-forgetfulness/what-mild-cognitive-impairment
- https://www.alzheimers.org.uk/about-dementia/types-dementia/mild-cognitive-impairment-mci

General Information - Risk Factors

Disease Overview, Symptoms, Pathology

There are several factors known to increase the risk of developing AD, both nonmodifiable and modifiable.

Nonmodifiable Risk Factors:

- **Age:** prevalence doubles every 5 years after age 65; by age 85, risk is nearly 30%
- **Genetics:** APOE ε4 allele increases risk 3-fold with 1 copy and 8- to12-fold with 2 copies
- **Family History:** risk increases 2- to 4-fold in individuals with first-degree relatives with AD
- **Gender:** women represent nearly two-thirds of AD cases; this disparity extends beyond longer female lifespan and may involve hormonal and sex-specific genetic factors

Modifiable Risk Factors:

- **Vascular:** hypertension, diabetes, obesity, and hyperlipidemia-all increase risk
- **Traumatic Brain Injury:** especially with loss of consciousness or repetitive injuries, risk increases
- **Education:** lower educational levels are associated with ~60% increased risk
- **Lifestyle:** physical inactivity and social isolation doubles risk; poor sleep quality and sleep disorders significantly increase risk
- **Hearing Loss:** mild hearing loss doubles dementia risk
- **Untreated Depression:** recurrent or untreated depression increases risk by ~65% to 90%; depression may be both a risk factor and an early manifestation of underlying pathology

Resources:

- https://www.nhs.uk/conditions/alzheimers-disease/causes/
- https://www.alz.org/alzheimers-dementia/what-is-alzheimers/causes-and-risk-factors
- https://www.nia.nih.gov/health/alzheimers-causes-and-risk-factors/thinking-about-your-risk-alzheimers-disease-five
- https://www.alzint.org/about/risk-factors-risk-reduction/
- https://www.kaerbrain.org/Kickstart/Engage-in-Conversations-About-Protective-Actions

Early Identification of Cognitive Impairment

Early Signs and Benefits

Initial signs of cognitive impairment can be identified several ways:

- Patient self-reports of memory problems or cognitive changes
- Family members or friends/care partners report concerns about memory lapses, personality changes, and difficulty managing finances or medications
- During routine visits, including Medicare Annual Wellness Visit,* providers may notice subtle changes in patient presentation such as missed appointments, difficulty following treatment plans, or new problems managing chronic conditions

Benefits of early assessment:

- No evidence of cognitive impairment provides a baseline for future assessments and can alleviate concerns for the patient
- If there is evidence of cognitive impairment, next steps can be taken to identify the cause of impairment. This may lead to treating underlying conditions, managing comorbid conditions, timely referrals or opportunities for clinical trials, and will allow the patient to create advance directives, including addressing long-term medical, legal, or financial concerns

** Medicare Annual Wellness Visit includes a cognitive assessment, however only about 30% of beneficiaries receive the assessment due to time, lack of standardization of screening tool, provider discomfort with interpretation, concern about next steps if impairment is detected, and billing and reimbursement complexities.*

Resources:

- https://www.nia.nih.gov/health/health-care-professionals-information/assessing-cognitive-impairment-older-patients
- https://www.alz.org/professionals/health-systems-medical-professionals/cognitive-assessment
- https://alz-journals.onlinelibrary.wiley.com/doi/10.1002/alz.14539
- https://www.aafp.org/dam/AAFP/documents/patient_care/clinical_recommendations/blood-biomarkers.pdf
- https://bolddementiadetection.org/wp-content/uploads/2024/02/BOLD_Toolkit_HSP_2024.pdf

Cognitive Assessments

Overview and Purpose

Cognitive assessments for AD are standardized screening tools that evaluate various cognitive domains including memory, language, executive function, and visuospatial skills. These assessments serve as a first-line approach to identifying cognitive impairment that may indicate AD or other dementias.

The most commonly used brief cognitive assessments in primary care include MMSE, MoCA, and Mini-Cog (see list on Slide 10). Ongoing research and development in digital cognitive assessments include smartphone/tablet-based tools that can be administered in the clinic or at home (with various degrees of reliability – see list on Slide 11).

While healthcare systems may already have a preferred tool, cognitive assessments for dementia should balance clinical utility with practical constraints. The ideal tool should align with the patient's characteristics (age, education, language, sensory abilities), provide appropriate sensitivity for the suspected condition and disease stage, and fit within current clinical workflows. No single test is perfect, but providers should consider approaches that combine a brief cognitive tool with functional assessment, medical history, and input from care partners. This will create a more efficient screening process that supports timely diagnosis while minimizing false positives and unnecessary specialist referrals.

Resources:

- https://www.alz.org/professionals/health-systems-medical-professionals/cognitive-assessment
- https://www.alz.org/getmedia/9687d51e-641a-43a1-a96b-b29eb00e72bb/cognitive-assessment-toolkit
- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/disease-state-and-cognitive-assessments.pdf
- https://www.kaerbrain.org/Assess/Brief-Cognitive-Tests
- https://pmc.ncbi.nlm.nih.gov/articles/PMC8078574/
- https://www.alz.org/professionals/health-systems-medical-professionals/clinical-resources/instructional-videos

Brief Cognitive Assessments

Most commonly used Brief Cognitive Assessments (BCAs)

Test Name	Administration Time	What it Measures	Key Reference
Mini-Mental State Examination (MMSE)	7-10 minutes	Global cognitive function including orientation, attention, memory, language, and visuospatial skills	*Folstein MF*, et al. "Mini-mental state": A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975;12(3):189-198.
Montreal Cognitive Assessment (MoCA)	10-15 minutes	Executive function, visuospatial abilities, attention, language, memory, and orientation	Nasreddine ZS, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *J Am Geriatr Soc*. 2005;53(4):695-699.
Mini-Cog	3-5 minutes	Memory (3-item recall) and visuospatial skills (clock drawing)	Borson S, et al. The Mini-Cog: a cognitive 'vital signs' measure for dementia screening in multi-lingual elderly. *Int J Geriatr Psychiatry*. 2000;15(11):1021-1027.
Saint Louis University Mental Status (SLUMS)	7-10 minutes	Orientation, attention, memory, executive function, and visuospatial skills	Tariq SH, 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.
Clock Drawing Test (CDT)	2-3 minutes	Visuospatial ability, executive function	Shulman KI. Clock-drawing: is it the ideal cognitive screening test? *Int J Geriatr Psychiatry*. 2000;15(6):548-561.
General Practitioner Assessment of Cognition (GPCOG)	4-6 minutes	Time orientation, clock drawing, information, and recall; includes informant component	Brodaty H, et al. The GPCOG: a new screening test for dementia designed for general practice. *J Am Geriatr* Soc. 2002;50(3):530-534.
AD8 Dementia Screening Interview	2-3 minutes	Informant-based assessment of memory, orientation, judgment, and function	Galvin JE, et al. The AD8: a brief informant interview to detect dementia. *Neurology*. 2005;65(4):559-564.
Rapid Cognitive Screen (RCS)	2-3 minutes	Memory (3-item recall), clock drawing, and insight	Malmstrom TK, et al. The Rapid Cognitive Screen (RCS): a point-of-care screening for dementia and mild cognitive impairment. *J Nutr Health Aging*. 2015;19(7):741-744.

Note: most cognitive assessments will be selected by the healthcare system (not individually by PCP or BHN.)

Digital Cognitive Assessments

Commercially available Digital Cognitive Assessments (DCAs)

Test Name	Administration Time	What it Measures	Key Reference
Cognivue	10 minutes	Visuomotor coordination, perceptual processing, memory, executive function	Cahn-Hidalgo D, et al. Validity, reliability, and psychometric properties of a computerized, cognitive assessment test (Cognivue®). *World J Psychiatry*. 2020;10(1):1-11.
Cognigram	15-20 minutes	Psychomotor function, attention, visual learning, working memory	Maruff P, et al. Validity of the CogState brief battery: relationship to standardized tests and sensitivity to cognitive impairment in mild traumatic brain injury, schizophrenia, and AIDS dementia complex. *Arch Clin Neuropsychol*. 2009;24(2):165-178.
BrainCheck Memory	10-15 minutes	Immediate and delayed recall, executive function, processing speed, attention	Ye S, et al. A Computerized Cognitive Test Battery for Detection of Dementia and Mild Cognitive Impairment: Instrument Validation Study. *JMIR Aging*. 2022;5(2):e36825
CANTAB Mobile	10 minutes	Visual memory, episodic memory, executive function, processing speed	Blackwell AD, et al. Detecting dementia: novel neuropsychological markers of preclinical Alzheimer's disease. *Dement Geriatr Cogn Disord*. 2004;17(1-2):42-48.
Digital Clock Draw Test (dCDT)	1-3 minutes	Visuospatial function, executive function	Dion C, et al. Cognitive Correlates of Digital Clock Drawing Metrics in Older Adults with and without Mild Cognitive Impairment. *J Alzheimers Dis*. 2020;75(1):73-83.
Linus Health DCTclock	2-3 minutes	Visuospatial ability, executive function, processing speed	Souillard-Mandar W, et al. DCTclock: Clinically-Interpretable and Automated Artificial Intelligence Analysis of Drawing Behavior for Capturing Cognition. *Front in Digital Health*. 2021;3:750661.
NeuroTrack Cognitive Battery	15 minutes	Visual recognition memory, executive function, sustained attention	Zola SM, et al. A behavioral task predicts conversion to mild cognitive impairment and Alzheimer's disease. Am J Alzheimers Dis Other Demen. 2013;28(2):179-184.
CognICA (Integrated Cognitive Assessment)	5-10 minutes	Visual processing, semantic memory, language agnostic	Kalafatis C, et al. Validity and Cultural Generalisability of a 5-Minute AI-Based, Computerised Cognitive Assessment in Mild Cognitive Impairment and Alzheimer's Dementia. *Front Psychiatry*. 2021;12:706695.
Brain Health Assessment (BHA)	10 minutes	Memory, executive function, speed, visuospatial skills	Possin KL, et al. The Brain Health Assessment for detecting and diagnosing neurocognitive disorders. *J Am Geriatr Soc*. 2018;66(1):150-156.

Note: while there are a few FDA-cleared DCA tests, many of these are used in research settings and are still being developed and/or validated. Also, several of these tests are intended to be used in unsupervised or remote/at-home settings.

After Cognitive Screening - Next Steps

Considerations for PCPs/Brain Health Navigators

If a patient has signs of cognitive impairment, next steps in the clinical pathway that should be considered include the following:

- **Follow-up Assessments –** comprehensive evaluations to clarify the nature and extent of cognitive impairments (e.g., detailed history of cognitive symptoms, assess functional status, and medication review to identify potential contributors); laboratory tests can help rule out reversible causes, such as complete blood count, metabolic panel, thyroid function, vitamin B12, and folate levels
- **Biomarker/Imaging –** MRI or CT scans can help identify structural abnormalities, vascular disease, or patterns of atrophy consistent with neurodegenerative conditions; imaging can also help distinguish between different dementia types and identify treatable conditions. If available, a blood biomarker test that detects the presence of amyloid, could help aid in the diagnosis
- **Specialist Referral –** neurologists, geriatricians, or neuropsychologist, can provide comprehensive cognitive assessments, additional biomarker testing, and treatment recommendations, where appropriate
- **Diagnosis and Communication –** once sufficient information is gathered, the discuss findings with the patient and family; this should occur in a supportive setting with adequate time, using clear language to explain the diagnosis, prognosis, and next steps
- **Care Planning –** comprehensive care plan might be needed that addresses both medical management and supportive care needs; consider pharmacological interventions when appropriate, management of comorbidities, and addressing modifiable risk factors
- **Support and Resources –** leverage education and support resources, including local organizations, care partner support groups, and legal/financial planning resources
- **Ongoing Monitoring –** follow-up appointments to monitor cognitive status, functional abilities, neuropsychiatric symptoms, care partner well-being, and treatment response

Goal is to provide timely diagnosis, appropriate treatment, and comprehensive support to maintain quality of life and functional independence for as long as possible.

Resources:

- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/identifying-patients-for-referral.pdf
- https://www.kaerbrain.org/Evaluate/Diagnostic-Overview
- https://www.kaerbrain.org/Evaluate/Components-of-a-Diagnostic-Evaluation-for-Dementia
- https://www.alz.org/alzheimers-dementia/diagnosis/medical_tests

AD Biomarkers - Overview

What are biomarkers? How can they be helpful?

Biomarker testing for AD measures specific biological indicators that can detect the disease's presence or progression, often before clinical symptoms appear. Biomarkers can help clinicians diagnose AD more accurately, track disease progression, predict future decline, and measure response to treatments. Biomarker testing for AD has advanced significantly in recent years, offering more accurate diagnosis earlier in the disease process. The most common tests for confirming AD pathology include positron emission tomography (PET) and cerebrospinal fluid (CSF), but have several limitations (e.g., invasive lumbar punctures for CSF, high cost of imaging that may not be covered by health insurance, mostly available in secondary or tertiary care).

Recent advancements in blood biomarkers (BBMs) for AD could offer less invasive and potentially more affordable alternatives to CSF and neuroimaging. These tests detect specific proteins associated with AD pathology. BBMs should be used in patients with objective cognitive impairment and as part of a diagnostic workup with other tests. BBMs are not intended to be used in asymptomatic individuals or for routine screening of the general population. BBMs are not used as a stand-alone test to diagnose AD.

Recommendations for Implementation:

- Be prepared to discuss implications of results (both negative and positive) and potential next steps (eg, referrals, additional diagnostic testing, treatment planning)
- Understand the benefits and limitations of the tests

Resources:

- https://www.youtube.com/playlist?list=PLpOGWtddQeyoFPH6KZv8f7TYudcNLgwbZ
- CEOi Flyer - Determining Clinical Suspicion of AD
- https://www.alz.org/getmedia/3d226bf2-0690-48d0-98ac-d790384f4ec2/alzheimers-facts-and-figures-special-report.pdf
- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/role-of-amyloid-beta.pdf
- https://www.aafp.org/dam/AAFP/documents/patient_care/clinical_recommendations/blood-biomarkers.pdf

AD Biomarkers – Available Tests

Neuroimaging, CSF, and BBM Tests

Biomarker testing for AD has advanced significantly, offering more accurate diagnosis earlier in the disease process.

Neuroimaging Biomarkers
- Amyloid PET scans: Visualize amyloid plaques using tracers
- Tau PET scans: Visualize tau tangles; newer technology with increasing clinical use
- FDG-PET: Shows glucose metabolism patterns characteristic of AD
- MRI and CT: Assesses structural brain changes and atrophy patterns

Considerations: Expensive, limited availability, radiation exposure with PET

Cerebrospinal Fluid (CSF)
- Amyloid-β (Aβ42 and Aβ40): decreased levels of Aβ42 or Aβ42/Aβ40 ratio indicate amyloid plaques
- Phosphorylated tau (p-tau): elevated levels indicate neurofibrillary tangles
- Total tau (t-tau): elevated levels indicate neuronal damage

Considerations: requires lumbar puncture.

Blood Biomarkers (BBM)
- Plasma pTau217: high sensitivity and specificity for AD pathology; provides a score corresponding to likelihood of amyloid plaques
- Plasma pTau181: strong correlation with brain tau tangles; helps differentiate from other dementias
- Plasma Aβ42/Aβ40 ratio: decreased ratio indicates brain amyloid presence; often combined with other biomarkers
- Neurofilament light chain (NfL): marker of neurodegeneration (not specific to AD); useful for tracking disease progression

Considerations: often includes ApoE genotyping; not a standalone diagnostic test; used in research more than clinical practice.

Resources:
- https://www.youtube.com/playlist?list=PLpOGWtddQeyoFPH6KZv8f7TYudcNLgwbZ
- CEOi Flyer - Current Testing Modalities: Advantages and Limitations
- CEOi Flyer - What Clinicians / HCPs Need to Know about Validated BBM Tests
- Blood Tests for Alzheimer's Disease: A Decision Guide
- MCI and Brain Amyloid Imaging: A Decision Guide

Alzheimer's Disease Biomarkers - Next Steps

What happens after a BBM test?

Similar to the steps following a cognitive assessment, next steps in the clinical pathway following a biomarker test that should be considered include the following:

- If biomarker results are positive and indicate AD pathology is present, consider additional diagnostic assessments such as detailed cognitive testing, functional evaluation, and **confirmatory biomarker testing** (i.e., PET or CSF) to confirm the diagnosis
- Depending on healthcare system, consider **referrals to specialists**; neurologists, geriatricians, or neuropsychologists can provide comprehensive cognitive assessments, additional biomarker testing, and treatment recommendations, where appropriate
- Leverage education and **support resources**, including local organizations, care partner support groups, and legal/financial planning resources
- Discuss potential treatment options, medication management, lifestyle modifications, safety assessments, care partner support, and/or advance care planning
- If biomarker results are negative and the underlying pathology is not consistent with AD, consider **alternative diagnoses** and appropriate evaluations for other causes of cognitive impairment

In all cases, results should be communicated clearly to patients and families with education about what the findings mean, their implications for prognosis, and available support resources.

Resources:

- https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.14184
- https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.14150
- https://www.alzbiomarkerhub.org/workgroup-publications-workstream-b

AD Treatment Options

Approved Treatments for Alzheimer's Disease

Symptomatic Medications
- Cholinesterase inhibitors (donepezil, rivastigmine, galantamine) for mild to moderate AD, provides temporary improvement in cognitive symptoms by increasing acetylcholine levels
- Memantine, an NMDA receptor antagonist, for moderate to severe disease and can be combined with cholinesterase inhibitors

Anti-Amyloid Therapies
- Monoclonal antibody therapies targeting amyloid beta are the newest class of FDA-approved treatments
- Lecanemab (Leqembi) and donanemab (Kisunla): slow cognitive decline in early-stage disease

Considerations: require regular IV infusions and MRI monitoring for amyloid-related imaging abnormalities (ARIA.)

Management of Behavioral and other Symptoms
- Preferred initial approach for behavioral and psychological symptoms includes non-pharmacological approaches such as environmental modifications, care partner education, and structured activities
- Consider medications for specific symptoms such as antidepressants for mood disturbances, low-dose antipsychotics for severe agitation or psychosis, and treatments for sleep disturbances

Supportive Care and Lifestyle Interventions
- Regular physical exercise, nutritional support, and cognitive stimulation therapy may provide cognitive benefits
- Social engagement programs and caregiver support services are essential
- Multimodal approaches combining cognitive training, physical activity, dietary modification, and vascular risk factor management may delay cognitive decline

Emerging Treatments
- The treatment landscape for AD continues to evolve with ongoing clinical trials investigating tau-targeting therapies, immunotherapies, combination approaches, and novel mechanisms of action
- Precision medicine approaches based on biomarker profiles and genetic factors may eventually enable more personalized treatment strategies

Resources:
- https://www.nia.nih.gov/health/health-care-professionals-information/caring-older-patients-cognitive-impairment
- https://www.alz.org/alzheimers-dementia/treatments/medications-for-memory
- https://www.alzheimers.org.uk/about-dementia/treatments/researching-new-drugs-alzheimers-disease
- https://www.mayoclinic.org/diseases-conditions/alzheimers-disease/in-depth/alzheimers-treatments/art-20047780
- [VIDEO] A New Approach to Treating Alzheimer's Disease

Clinical Trials & Support Services

After an AD Diagnosis

For patients that have been diagnosed with AD or related dementias, there are opportunities to enroll in clinical trials. This process involves systematic screening of eligible candidates using cognitive assessments and biomarker testing for various trial types, from anti-amyloid therapies to nonpharmacological interventions. Participation typically requires confirmatory biomarkers and specific disease staging, with patients connected to opportunities through resources like the Alzheimer's Association TrialMatch or academic memory centers. The experience includes screening visits, baseline assessments, treatment administration, and regular follow-up appointments with safety monitoring throughout the study duration.

Following diagnosis, comprehensive support services become essential for both patients and care partners, including care coordination and interdisciplinary teams, educational programs, and practical assistance for daily living needs. Support extends to care partners through respite options, support groups, and counseling services, while professional guidance helps with legal and financial planning, including advance directives and long-term care considerations. Community resources such as the Alzheimer's Association Helpline, Area Agencies on Aging, and palliative care services provide ongoing assistance throughout the disease progression. Brain Health Navigators serve as crucial connectors between patients and these resources, facilitating access to both innovative research and practical support that enhances quality of life throughout the disease journey.

Resources:

- https://www.nia.nih.gov/health/health-care-professionals-information/healthy-aging-and-dementia-resources-health-care
- https://www.nia.nih.gov/health/clinical-trials-and-studies
- https://www.alzheimers.gov/clinical-trials/find-clinical-trials
- https://www.alzheimers.gov/professionals/patients-clinical-trials
- https://www.alz.org/alzheimers-dementia/research-and-progress/clinical-trials
- https://www.alz.org/help-support/i-have-alz/programs-support

Resource Index List

List of all resources included in this training guide

GENERAL INFORMATION

Dementia

- https://www.nia.nih.gov/health/alzheimers-and-dementia/understanding-different-types-dementia
- https://www.nia.nih.gov/health/alzheimers-and-dementia/dementia-umbrella-term
- https://www.alz.org/alzheimers-dementia/what-is-dementia
- [VIDEO] NIA - What is Dementia?
- https://www.alzheimers.gov/alzheimers-dementias/what-is-dementia
- https://www.alzint.org/about/symptoms-of-dementia/

Alzheimer's Disease

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- [VIDEO] NIA - How Alzheimer's Changes the Brain
- [VIDEO] Alzheimer's Disease Pathology
- https://www.nia.nih.gov/health/alzheimers-and-dementia/alzheimers-disease-fact-sheet
- https://www.alz.org/alzheimers-dementia/what-is-alzheimers
- https://www.youtube.com/watch?v=qYBS0lodl0w
- CEOi Flyer - Alzheimer's Disease Pathology

Mild Cognitive Impairment

- https://www.alzheimers.gov/alzheimers-dementias/mild-cognitive-impairment
- https://www.alz.org/alzheimers-dementia/what-is-dementia/related_conditions/mild-cognitive-impairment
- https://www.nia.nih.gov/health/memory-loss-and-forgetfulness/what-mild-cognitive-impairment
- https://www.alzheimers.org.uk/about-dementia/types-dementia/mild-cognitive-impairment-mci

Risk Factors

- https://www.nhs.uk/conditions/alzheimers-disease/causes/
- https://www.alz.org/alzheimers-dementia/what-is-alzheimers/causes-and-risk-factors
- https://www.nia.nih.gov/health/alzheimers-causes-and-risk-factors/thinking-about-your-risk-alzheimers-disease-five
- https://www.alzint.org/about/risk-factors-risk-reduction/
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- https://alz-journals.onlinelibrary.wiley.com/doi/10.1002/alz.14539
- https://www.aafp.org/dam/AAFP/documents/patient_care/clinical_recommendations/blood-biomarkers.pdf
- https://bolddementiadetection.org/wp-content/uploads/2024/02/BOLD_Toolkit_HSP_2024.pdf

Cognitive Assessments

- https://www.alz.org/professionals/health-systems-medical-professionals/cognitive-assessment
- https://www.alz.org/getmedia/9687d51e-641a-43a1-a96b-b29eb00e72bb/cognitive-assessment-toolkit
- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/disease-state-and-cognitive-assessments.pdf
- https://www.kaerbrain.org/Assess/Brief-Cognitive-Tests
- https://pmc.ncbi.nlm.nih.gov/articles/PMC8078574/
- https://www.alz.org/professionals/health-systems-medical-professionals/clinical-resources/instructional-videos

After Cognitive Screening: Next Steps

- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/identifying-patients-for-referral.pdf
- https://www.kaerbrain.org/Evaluate/Diagnostic-Overview
- https://www.kaerbrain.org/Evaluate/Components-of-a-Diagnostic-Evaluation-for-Dementia
- https://www.alz.org/alzheimers-dementia/diagnosis/medical_tests

Alzheimer's Disease Biomarkers - Overview

- https://www.youtube.com/playlist?list=PLpOGWtddQeyoFPH6KZv8f7TYudcNLgwbZ
- CEOi Flyer - Determining Clinical Suspicion of AD
- https://www.alz.org/getmedia/3d226bf2-0690-48d0-98ac-d790384f4ec2/alzheimers-facts-and-figures-special-report.pdf
- https://www.youngerthanyouthink.com/-/media/Files/Youngerthanyouthink/role-of-amyloid-beta.pdf
- https://www.aafp.org/dam/AAFP/documents/patient_care/clinical_recommendations/blood-biomarkers.pdf

Alzheimer's Disease Biomarkers – Available Tests

- https://www.youtube.com/playlist?list=PLpOGWtddQeyoFPH6KZv8f7TYudcNLgwbZ
- CEOi Flyer - Current Testing Modalities: Advantages and Limitations
- CEOi Flyer - What Clinicians / HCPs Need to Know about Validated BBM Tests
- Blood Tests for Alzheimer's Disease: A Decision Guide
- MCI and Brain Amyloid Imaging: A Decision Guide

Alzheimer's Disease Biomarkers – Next Steps

- https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.14184
- https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.14150
- https://www.alzbiomarkerhub.org/workgroup-publications-workstream-b

Alzheimer's Disease Treatment Options

- https://www.nia.nih.gov/health/health-care-professionals-information/caring-older-patients-cognitive-impairment
- https://www.alz.org/alzheimers-dementia/treatments/medications-for-memory
- https://www.alzheimers.org.uk/about-dementia/treatments/researching-new-drugs-alzheimers-disease
- https://www.mayoclinic.org/diseases-conditions/alzheimers-disease/in-depth/alzheimers-treatments/art-20047780
- [VIDEO] A New Approach to Treating Alzheimer's Disease

Clinical Trials & Support Services

- https://www.nia.nih.gov/health/health-care-professionals-information/healthy-aging-and-dementia-resources-health-care
- https://www.nia.nih.gov/health/clinical-trials-and-studies
- https://www.alzheimers.gov/clinical-trials/find-clinical-trials
- https://www.alzheimers.gov/professionals/patients-clinical-trials
- https://www.alz.org/alzheimers-dementia/research-and-progress/clinical-trials
- https://www.alz.org/help-support/i-have-alz/programs-support

Additional Resources, Tools, Toolkits

- Cognition in Primary Care – training workshop and resources developed by Barak Gaster and team at the University of Washington to facilitate detection of cognitive improvement
- KAER Toolkit – comprehensive toolkit for primary care teams to support brain health and improve cognitive impairment detection
- AAFP Early Detection of Alzheimer's Disease and Related Dementias – evidence-based guidance for primary care physicians with clear steps and examples throughout the diagnostic process
- Continuing Education on Alzheimer's and Dementia – free CME/CE options for physicians, radiologists, neurologists, nurses, PAs, psychiatrists, social workers, pharmacists, and other clinicians to remain current in this fast-changing field
- BOLD/CDC Early Detection of Dementia Toolkit – guide for healthcare organizations and HCPs on the value of early detection and how to develop a plan for becoming more 'dementia-capable'
- Communication Toolkit for Alzheimer's Disease – general advice and best practices for communication about Alzheimer's disease with patients and care partners
- AAFP Cognitive Care Kit – resources to help physicians, families, and caregivers support individuals with, or at risk for, cognitive impairment
- AAPA Cognitive Assessment Toolkit – CME for HCPs with the skills and resources needed to identify cognitive impairment in its early stages
- How to Change the "D-Word" – language guide that provides recommendations for organizations, healthcare providers, media, and individuals for how to replace the "D-word"
- Glossary of Terms – list of abbreviations for individuals new to dementia research

Real-World Training Examples

Resources and materials created by DAC program sites

- Alzheimer's Blood Biomarker Training for Primary Care – from Kansas University Alzheimer's Disease Research Center
- How to Diagnose and Treat Patients with ADRD – from Kansas University Alzheimer's Disease Research Center explain a diagnostic workup for PCPs