



A Look at the NEW GUIDELINES for Diagnosing Alzheimer's Disease

In April, there was a lot of buzz when the National Institute on Aging (NIA) and the Alzheimer's Association announced new "Diagnostic Guidelines for Alzheimer's Disease." What do they mean to you?

RICHARD E. POWERS, M.D., chairman of the Alzheimer's Foundation of America's Medical Advisory Board, recently interviewed **MARIE A. BERNARD, M.D.**, deputy director of the NIA and one of the experts who helped develop the guidelines, to gain further insight into the new diagnostic criteria.

Question: What is the difference between dementia and Alzheimer's disease?

Answer: Dementia is the umbrella term for brain disorders that cause a person to lose their ability to function normally in daily life. Alzheimer's disease is the most common, but there are other dementias, such as vascular, Lewy body, etc. Although we know Alzheimer's dementia is distinct from these other forms, in the early stages it may be difficult to differentiate among them. Additionally, many older people may have more than one condition, such as Alzheimer's disease combined with vascular disease and sometimes small strokes.

That is one of the reasons why researchers hope one day to develop an easy-to-administer, reliable and inexpensive biomarker—a test that indicates harmful changes taking place in the brain—that can be used in a doctor's office. For example, eventually there may be a simple blood test to help diagnose Alzheimer's disease.

Question: How was dementia diagnosed before these new guidelines and what has changed?

Answer: The new guidelines do not dramatically alter the current process doctors use to diagnose Alzheimer's disease. Dementia is still diagnosed based on significant and chronic

changes in a person's thinking processes, or as a professional would state, cognition. Healthcare providers speak with the patient and family or caregivers, seeking observations about changes in how the patient thinks, learns and remembers and taking into consideration other potential causes of cognitive decline—for example, medications, malnutrition, dehydration, depression.

However, the new guidelines ask doctors to look beyond just memory loss for additional symptoms that may mark onset of the disorder, such as problems with judgment. And the revised guidelines outline ways the healthcare provider should approach evaluating the causes and progression of cognitive decline. For example, healthcare providers are made aware that mild cognitive impairment (MCI) may in many cases progress to Alzheimer's disease and that memory impairment is not always the first symptom of Alzheimer's.

Question: Where and how are biomarkers and new imaging tests being used?

Answer: At this time, they are being used by researchers investigating how brain imaging and body fluid analysis relate to the changes taking place in the brain and whether the tests can predict who is at risk for developing the clinical symptoms associated with the disease. For clinicians in research centers or with access to large medical centers, fluid biomarker and imaging tests may be used in certain cases. For example, they may be used to increase or decrease the level of certainty about a diagnosis of Alzheimer's dementia and to distinguish Alzheimer's dementia from other dementias. But at this stage, the tests are not available to primary care doctors because investigators are still standardizing and evaluating their use.

Question: Why were the diagnostic criteria for Alzheimer's disease revised and who led the effort?

Answer: The diagnostic criteria had been in place for more than 27 years and did not reflect the new knowledge that has been gained regarding the progression of the disease. Thus,



the National Institute on Aging (NIA) at the National Institutes of Health and the Alzheimer's Association brought together experts in clinical neuro- and behavioral science to revise the criteria.

The new guidelines will help guide research and hopefully speed the discovery of treatments to delay and/or prevent Alzheimer's disease. The guidelines also explain to clinicians and the public our deeper understanding of the disease—that it develops over decades, long before the first signs of dementia appear; and for that reason, clinicians need to be sensitive to early changes that may be associated with the development of mild cognitive impairment.

Question: How will doctors use the updated guidelines to better diagnose Alzheimer's disease?

Answer: For the most part, doctors will consider Alzheimer's disease in an office setting pretty much as they have in the past, but with updated knowledge about what to look for. A major change for physicians is the consideration of mild cognitive impairment, or MCI. People with MCI have problems with memory or other cognitive functions that are greater than normal for their age and education.

Some doctors may use the guidelines to better inform patients with MCI about their increased risk for developing Alzheimer's disease. For clinicians with access to researchers conducting biomarker and/or imaging studies, such tests—while experimental—may be used to affirm suspicions of Alzheimer's disease.

Question: Can doctors use the guidelines to diagnose other kinds of dementia besides Alzheimer's disease?

Answer: The guidelines are specifically for Alzheimer's dementia.

Question: Should these new guidelines be used to “re-diagnose”—that is, for those who already have a diagnosis of Alzheimer's disease?

Answer: As a physician, I do not see a role for the guidelines being used to re-diagnose an individual who already has a confirmed diagnosis. People who currently have the diagnosis of Alzheimer's disease are those with evident functional and cognitive impairment. With lesser impairments, patients and doctors might ask about mild cognitive impairment.

In any case, if you or a family member is worried about changes in cognition, you may want to see a healthcare professional such as a geriatrician, geriatric psychiatrist or a neurologist. Early diagnosis aids in planning for the future, from learning about available drugs that treat the symptoms, to making financial decisions, to exploring ways to get involved in clinical trials.

Question: Will these criteria impact current or future treatment?

Answer: It is the hope that these criteria will guide future research and advance our discovery of the changes taking place in the brain that lead to the development of Alzheimer's disease. With that discovery, we should be better positioned to develop effective treatments.

Question: Are these the only guidelines doctors will be using now?

Answer: The NIA-Alzheimer's Association guidelines have been developed based on evidence by leading scientists in the behavioral and clinical neuroscience fields. Thus, it is hoped that clinicians will become aware of them and utilize them to enhance how they think about patients with cognitive impairment.

Question: Should primary care clinicians refer their patients to a neurologist for a preclinical evaluation?

Answer: There currently is not a role for biomarkers in routine care. The guidelines for preclinical Alzheimer's disease are exclusively for research purposes. Researchers will use new advances in imaging and biomarkers to evaluate research participants for buildup of abnormal proteins.

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Primary care clinicians should consider referring patients who wish to volunteer for research projects related to Alzheimer's disease. Research centers can be identified through the Alzheimer's Disease Education and Referral (ADEAR) Center Web site maintained by NIA, at <http://www.nia.nih.gov/Alzheimers/>.

Question: Will insurance companies pay for biomarker tests?

Answer: Currently, it is common for Medicare to compensate for a CT scan or MRI to help establish a clinical diagnosis of Alzheimer's disease and rule out other causes of dementia. Testing for preclinical disease is only being conducted in research settings. Looking ahead, a component of the new Medicare Annual Wellness Visit (AWV) allows the clinician compensation for an assessment for cognitive impairment on an annual basis, along with multiple other preventive health assessments. As better screening procedures are developed and the guidelines become better [distributed] we expect clinicians will increasingly recognize and monitor patients with MCI during AWVs-- especially those patients who report memory loss problems that often progress to Alzheimer's disease. Hopefully, this will be accompanied by counseling regarding long-range planning, and education regarding available community resources.