



DETECTION, DIAGNOSIS AND MANAGEMENT OF DEMENTIA

Last Reviewed: 4/25/2019

This is a summary of three American Academy of Neurology (AAN) guidelines on dementia. Although the guidelines address all forms of dementia, this summary focuses on Alzheimer's disease, for which current evidence is strongest and clearest. The guidelines conclude that AD should be detected and treated early. Patients with Mild Cognitive Impairment should be identified and monitored for progression to AD—a likely event. The clinical criteria for diagnosing AD are reliable and valid. Although AD is not curable, there are treatment and care options available today that can manage symptoms, improve quality of life and delay time to nursing home placement.

Please refer to the full guidelines for more information at www.aan.com/professionals/practice/index.cfm.

PRACTICE PARAMETER: DETECTION OF DEMENTIA—MILD COGNITIVE IMPAIRMENT

- **Dementia is common in the elderly.** 10% of persons over age 65 and up to 50 % over 85 have dementia.
- **AD and MCI differ from normal aging.** Know the ten warning signs of AD. Communicate the warning signs to your community, your colleagues, your patients, and their families. Contact the AAN or the Alzheimer's Association for tools or ideas on how to do so.
- **Identify and monitor Mild Cognitive Impairment patients for progression to AD.** MCI is a classification of persons with memory impairment who are not demented (normal general cognitive function; intact activities of daily living). Between 6 and 25% of MCI patients progress to dementia or AD each year. MCI patients should be evaluated regularly for progression

to AD using the assessment tools listed below.

- **Be alert to cognitive impairment in all your patients.** screen for dementia if cognitive impairment is suspected.

Good evidence supports using:

- General cognitive screening instruments:
 - Mini Mental Status Exam (adjusted for age/education)
 - Memory Impairment Screen
- Neuropsychological batteries

Weaker evidence supports using:

- Other general cognitive screening instruments:
 - Kokmen Short Test of Mental Status
 - 7-Minute Screen
- Interview based techniques:
 - Blessed Dementia Rating Scale
 - CDR
 - IQCODE
- Brief cognitive assessment instruments*:
 - Clock Drawing Test
 - Time and Change Test

*Caution should be used; these tools are limited in scope

Ten Warning Signs of AD

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|---|------------------------------------|
| 1. Memory loss that affects job skills | 6. Problems with abstract thinking |
| 2. Difficulty performing familiar tasks | 7. Misplacing things |
| 3. Problems with language | 8. Changes in mood or behavior |
| 4. Disorientation to time and place | 9. Changes in personality |
| 5. Poor or decreased judgment | 10. Loss of initiative |
- Used with the permission of the Alzheimer's Association.*

PRACTICE PARAMETER: DIAGNOSIS OF DEMENTIA

- The clinical criteria for AD are reliable (DSM-IIIIR definition; NINCDS-ADRDA and DSM-IV diagnostic criteria)
- Vascular dementia, dementia with Lewy Bodies and fronto-temporal dementia should be excluded, but the current diagnostic criteria for those diseases are imperfect.
- Structural neuroimaging is appropriate to detect lesions which may result in cognitive impairment.
- The CSF-14-3-3 protein is useful when CJD is suspected and recent stroke or viral encephalitis can be excluded.

- Evidence supports the following tests in the **routine evaluation of the demented patient:**
 - Complete blood cell count
 - Glucose
 - Depression screening
 - Thyroid function tests
 - Serum electrolytes
 - BUN/creatinine
 - Serum B12 levels
 - Liver function tests
- Evidence indicates the following tests **should not be included in the routine evaluation of the demented patient**
 - Screening for syphilis (unless patient has a specific risk factor, e.g., living in a high-incidence region)

- Linear or volumetric MR or CT measurement strategies
- SPECT
- Genetic testing for DLB or CJD
- APOE genotyping for AD
- EEG
- Lumbar puncture (unless presence of metastatic cancer, suspicion of CNS infection, reactive serum syphilis serology, hydrocephalus, age under 55,

- rapidly progressive or unusual dementia, immuno suppression, or suspicion of CNS vasculitis)
- At this time, there is not enough evidence to support or refute the use of the following tests:
 - PET
 - Genetic markers for AD not listed above
 - CSF or other biomarkers for AD
 - Tau mutations in patients with FTD
 - AD gene mutations in patients with FTD

PRACTICE PARAMETER: MANAGEMENT OF DEMENTIA

- Treat cognitive symptoms of AD with cholinesterase inhibitors and vitamin E. Consider the use of cholinesterase inhibitors in mild to moderate patients. Cholinesterase inhibitors may improve quality of life and cognitive functions including memory, thought and reasoning. They are proven effective for people who are mildly to moderately affected by the disease, and are under evaluation in patients with MCI and severe dementia. Therefore, the early recognition and diagnosis of Alzheimer's disease is important. Consider vitamin E to slow progression of AD; selegiline is also supported, albeit by weaker evidence. Do not prescribe estrogen to treat AD.
- Treat agitation, psychosis and depression. The patient's paranoia, suspiciousness, combativeness or resistance to maintaining personal hygiene can seem overwhelming to

families and caregivers and significantly impact quality of life. Evidence indicates that several strategies can decrease problem behaviors. If environmental manipulation fails to eliminate agitation or psychosis, use antipsychotics. Selected tricyclics, MAO-B inhibitors and SSRIs should be considered to treat depression.

- Encourage caregivers to participate in caregiver educational programs and support groups. Short term caregiver educational programs can improve caregiver satisfaction. Long term caregiver educational programs can delay time to nursing home placement for the AD patient. Caregiver training programs, and other support systems (computer support networks, telephone support programs, adult day care and other respite programs) may also help delay time to nursing home placement for the AD patient.

STRATEGIES TO IMPROVE FUNCTIONAL PERFORMANCE AND REDUCE PROBLEM BEHAVIORS

Strategy

Strength Of Evidence

To improve functional performance

- Behavior modification, scheduled toileting, prompted voiding to reduce urinary incontinence Strong
- Graded assistance, practice and positive reinforcement to increase functional independence Good
- Low lighting levels, music and simulated nature sounds to improve eating behaviors Weak
- Intensive multi-modality group training may improve activities of daily living Weak

To reduce problem behaviors

- Music, particularly during meals and bathing Good
- Walking or other forms of light exercise Good
- Simulated presence therapy, such as use of videotapes of family Weak
- Massage Weak
- Comprehensive psychosocial care programs Weak
- Pet therapy Weak
- Utilizing commands issued at the patient's comprehension level Weak
- Bright light, white noise Weak
- Cognitive remediation Weak

This is an evidence-based educational service of the American Academy of Neurology. It is designed to provide members with evidence-based guideline recommendations to assist with decision-making in patient care. It is based on an assessment of current scientific and clinical information, and is not intended to exclude any reasonable alternative methodologies. The AAN recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on the circumstances involved. Physicians are encouraged to carefully review the full AAN guidelines so they understand all recommendations associated with care of these patients.

Copies of this summary and a companion patient version are available at www.aan.com/professionals/practice/index.cfm or through AAN Member Services at (800) 879-1960.



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