Don’t Forget Dementia
Barry D. Weiss, MD, College of Medicine, University of Arizona

Dementia, the progressive loss of cognitive function, occurs more frequently with increasing age. The prevalence of dementia for people in their 60s is 1%. Doubling every 5 years, dementia has a prevalence of nearly 40% for people in their 90s. Dementia currently affects some 3-5 million people of all ethnic origins in the US, and this number will double over the next 5 years. Therefore, a provider treating older adults should be alert to this common and serious problem.

To make a formal diagnosis of dementia, a provider must determine the existence of memory impairment, and in addition, detect the presence of significant cognitive dysfunction in any one of the following areas: aphasia (language problems including naming of objects or difficulty with word finding), apraxia (inability to perform a previously routine and well rehearsed task, eg cooking or brushing teeth), agnosia (inability to recognize previously familiar items and people) and/or a decrease in executive function (ability to form and carry out a plan). Many of these symptoms and signs can be elicited by the history from the patient and the caregivers.

Unfortunately, providers often do not recognize symptoms of dementia and, therefore, patients do not undergo an appropriate evaluation. Indeed, research shows that providers identify dementia in fewer than 50% of patients who have the condition. Even at the point of nursing home placement, up to one-third of patients with dementia have not been previously diagnosed.

While there is insufficient evidence to recommend routine screening for dementia in older adults, patients who present with even mild symptoms of dementia should undergo an evaluation of cognitive function. A variety of tests have been recommended for this purpose, and many are listed in Table 1. The Mini-Mental State exam is exam is perhaps the most well known, but many good screening tools exist. Often subtle clues can be discerned from just observing the hygiene and dress of the patient, or evaluating their organizational skills. Simple factual questions can often detect problems with memory, such as asking about medication schedules or important dates.

TIPS FOR THE EARLY DIAGNOSIS OF DEMENTIA
- Don’t wait to consider the diagnosis of dementia until a patient has obvious cognitive impairment.
- Instead, consider the diagnosis when a patient has early symptoms, like falls, failing to appear for appointments at the correct time, dressing inappropriately, or the other symptoms listed in Table 3.
- If dementia is suspected, confirm the diagnosis using a standardized tool, and evaluate for reversible causes.

The Cost Of Missing The Diagnosis Of Dementia

Reversible Causes Go Undetected. Occasional patients – about 1 in 70 - will have a reversible cause of dementia than can be detected with a straightforward diagnostic workup (Table 2). If dementia in these patients is not detected in its early stages, irreparable neurological impairment may occur. Patients may unnecessarily suffer further cognitive decline, loss of social interactions, or undergo nursing home placement.

Safety People with undiagnosed dementia who continue to drive automobiles may present a danger to themselves and others. Firearms present another potential safety problem. Even more commonly, mismanagement of medications can lead to injury. An early diagnosis of dementia can result in appropriately-timed safety interventions and avoidance of injury.

Family Stress The acceptance of abnormal behaviors related to dementia varies widely among cultures. All caregivers/families of patients with dementia, however, ultimately face issues related to a decline in social functioning. Psychosocial or behavior-modifying therapy that might help will not be utilized if dementia goes unrecognized. Additionally, addressing end-of-life issues prior to a serious decline in function can help to clarify the wishes, goals and values of the patient.

Delaying Drug Treatment Although current drug treatments for dementia only delay progression and do not reverse disease, they often prolong the time a patient spends at home prior to institutionalized care. Failure to diagnose dementia in its early stages, however, deprives patients of any such benefit.

Why Is Dementia Under-Diagnosed?

While moderate and severe dementia is obvious to the provider, subtle symptoms can be easily missed – even ones that markedly increase the chance that a person has dementia (Table 3). Dementia of the Alzheimer’s type can be particularly difficult to detect, as everyday social interaction is well preserved. Eliciting any of these symptoms should prompt a dementia evaluation with the tests noted in Tables 1 and 2.
### References and Resources


Alzheimer’s Disease International. [Early symptoms of dementia](http://www.alz.co.uk/alzheimers/symptoms.html).


### Table 1. Brief Tests to Detect the Cognitive Impairment of Dementia

<table>
<thead>
<tr>
<th>Cognitive Test*</th>
<th>Time Required (minutes)</th>
<th>Likelihood of Dementia with Positive Test Compared to Negative Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini-Mental State Exam</td>
<td>7-10</td>
<td>4-13 times more likely</td>
</tr>
<tr>
<td>Clock Drawing</td>
<td>1-3</td>
<td>4-8 times more likely</td>
</tr>
<tr>
<td>Memory Impairment Screen</td>
<td>4</td>
<td>15-72 times more likely</td>
</tr>
<tr>
<td>Abbreviated Mental Test</td>
<td>5-7</td>
<td>6-12 times more likely</td>
</tr>
</tbody>
</table>

*See reference number 3 for details

### Table 2. Tests to Exclude Reversible Causes of Dementia

**Recommended by American Academy of Neurology**
- Thyroid function test
- Vitamin B₁₂ level
- Brain imaging (for NPH)

**Recommended by Canadian Consensus Conference on Dementia**
- Complete blood count
- Chemistry panel
- Thyroid function test

**Recommended when indicated based on clinical suspicion**
- Serologic test for syphilis
- Lyme disease titer
- Human immunodeficiency virus test
- Heavy metal assay
- EEG (if prion disease suspected)

### Table 3. Early Symptoms in the Diagnosis of Dementia

- Memory problems or repetitiveness
- Substituting incorrect or unusual words when speaking or writing
- Forgetting directions to a familiar place, or getting lost while going there
- New or frequent problems with interpersonal relationships
- Difficulty giving a coherent medical or family history
- Not just misplacing things, but putting or losing them in unusual places
- Failing to keep scheduled appointments at the correct time or day
- Inappropriate dress – over or under dressed for the weather or occasion
- Difficulty preparing meals, or preparing them incorrectly
- Falls (people with dementia are at twice the risk of falling)

### Common Dementia Syndromes **

- Alzheimer’s disease
  - 60-80% of all cases
  - Associated with short term memory loss
- Vascular dementia
  - 10-20% of cases
  - Associated with HTN, DM, HLD
- Parkinson’s Disease
  - 5% of cases
  - PD patients have 6 folds increase in the diagnosis of dementia
- Dementia with Lewy bodies
  - Associated with visual hallucinations
  - Associated sensitivity to neuroleptics
- Frontotemporal dementia
  - Associated with personality change
- Pseudodementia
  - Depression presenting as memory loss

* Mixed dementias involve more than one type
** Alcohol excess can exacerbate dementia issues

### Check it Out!

To help to ensure cultural competency throughout many practice environments, the Folstein mini-mental status is now available in over fifty languages.

[www.minimental.com](http://www.minimental.com)

### Interprofessional care improves the outcomes of older adults with complex health problems

**Editors:** Mindy Fain, MD; Jane Mohler, NP, MPH, PhD; and Barry D. Weiss, MD

**Interprofessional Associate Editors:** Tracy Carroll, PT, CHT, MPH; David Coon, PhD; Jeannie Lee, PharmD, BCPS; Lisa O’Neill, MPH; Floribella Redondo; Laura Vitkus, BA

The University of Arizona, PO Box 245069, Tucson, AZ 85724-5069 | (520) 626-5800 | [http://aging.medicine.arizona.edu](http://aging.medicine.arizona.edu)

Supported by: Donald W. Reynolds Foundation, Arizona Geriatric Education Center and Arizona Center on Aging

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UB4HP19047, Arizona Geriatric Education Center. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.