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ELDER CARE

A Resource for Interprofessional Providers

Don't Forget Dementia

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Dementia, a progressive deterioration in cognitive function, occurs more frequently with increasing age. Approximately 1% of people in their 60s have dementia, and the prevalence doubles every 5 years to nearly 40% of people in their 90s. Dementia currently affects 47 million people worldwide, with 9.9 million new cases each year. This number is projected to be 75 million in 2030 and nearly triple to 132 million by 2050. In the US alone, approximately 5.5 million people are currently living with Alzheimer's, which accounts for only 60-80% of all dementia cases. Dementia is a major cause of disability and dependency in older adults, and can have profound impact on patients, caregivers and families. Therefore, any provider treating older adults should be alert to this common and serious problem.

It is important to remember that although age is the greatest risk factor, dementia is *not* a normal part of aging. Other risk factors for dementia include family history, apolipoprotein E4 genotype, cardiovascular comorbidities, chronic anticholinergic use, and lower educational level. Unfortunately, clinicians often do not recognize symptoms of dementia and, therefore, patients do not undergo an appropriate evaluation. Early signs are often overlooked, as the onset can be gradual. 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 33% of patients with dementia have not been previously diagnosed.

To make a formal diagnosis of dementia, a clinician 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, such as 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). Consciousness is not affected. Many of these signs can be elicited by obtaining a thorough history from family members or caregivers, as patients themselves often have poor insight into, or will downplay, their symptoms.

While there is insufficient evidence to recommend routine screening for dementia in older adults, patients who present with even mild symptoms 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 perhaps the most well-known, but many other 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. Keep in mind that dementia and depression may present similarly in the older adult; it is therefore recommended to screen for depression as part of the assessment for dementia.

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 that 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 can 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 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 allow institution of 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. If dementia goes unrecognized, psychosocial or behavior-modifying therapy that might help will not be provided, nor will addressing end-of-life issues prior to a serious decline in function otherwise help clarify the wishes, goals and values of the patient.

Delaying Drug Treatment. Although current drug treatments for dementia only delay progression and do

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.

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not reverse disease, they can sometimes 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 or severe dementia may be obvious to clinicians, subtle symptoms can be easily missed – even ones that markedly increase the chance that a person has dementia (Table 3). Alzheimer's dementia can be particularly difficult to detect early, as everyday social interaction can be preserved. Eliciting any of the symptoms in Table 3 should prompt a dementia evaluation with the tests noted in Tables 1 and 2.

Table 1. Tests to Detect the Cognitive Impairment of Dementia*

Cognitive Test	Time Required	Sensitivity	Specificity
Mini-Mental State Exam	7-10 minutes	81%	89%
Clock Drawing	1-3 minutes	83%	84%
Addenbrooke's Cognitive Examination-Revised (ACE-R)	15-20 minutes	92%	89%
Mini-Cog test	2-4 minutes	91%	86%

*See reference number 2 (Arevalo et al.)

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-fold 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

Table 2. Tests to Exclude Reversible Causes of Dementia

Recommended by the American Geriatrics Society

- Thyroid function test*
- Vitamin B_{12} level*
- Complete blood count
- Complete metabolic panel
- Calcium level
- Folate level

Tests to consider based on clinical suspicion or risk factors

- Brain imaging (MRI without contrast preferred)
- Serologic test for syphilis
- Lyme disease titer
- Human immunodeficiency virus (HIV) test
- Heavy metal assay
- EEG (if prion disease suspected)
- Lumbar puncture

**Also recommended by the American Academy of Neurology*

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)

Check it Out!

To help ensure cultural competency throughout many practice environments, the Folstein Mini-Mental Status is now available in over fifty languages

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References and Resources

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