

# **Defining Geriatrician and a 3-Part Series for Dementia Descriptions Reprinted From University of Arizona Retirees Association Newsletters**

## **WHY A GERIATRICIAN?**

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At any given age, people's philosophies and values reflect the sum of their life experiences. In a similar way, "geriatric health" encompasses a long life of medical experiences. Some people have illnesses since birth, such as cerebral palsy, or which first began in childhood, for instance asthma or epilepsy. Others have medical problems, low back pain for example, which might reflect the stress of a lifetime occupation.

Some people have disorders dating from a sudden, unexpected injury that changed their lives, such as the trauma of a motor vehicle accident. Many older adults also possess ailments such as hypertension or diabetes, which crept up upon them quietly and were diagnosed at routine office visits. Others have medical problems that announced themselves in dramatic fashion, such as a stroke or a heart attack. And still many other people cross into the geriatric domain without an extensive medical story to tell, healthy by effort and/or by luck.

As a result of this diversity, geriatric patients are "more unique" than younger patients. Geriatricians, doctors who care for older adults, are specifically trained to address both this complexity and multiplicity of medical issues. Standardized treatment is often difficult to apply to such a varied group, and individualized decision making is required. Older adults often have a long list of medical problems accompanied by a long list of medications; geriatricians work to streamline prescriptions and also have expertise in choosing medication with the most benefit and the least side effects for older people. Surgery can also be a particularly risky situation for older adults, and geriatric expertise can help to optimize the risk faced by the older patient.

Besides medical conditions, geriatricians are also on the lookout for "geriatric syndromes" that adversely affect the quality of life of older adults. A syndrome is a constellation of symptoms without a single, treatable cause. Examples of common, often overlooked, geriatric syndromes include bothersome incontinence, falling, depression, dementia, insomnia, chronic pain, dehydration and malnutrition. Sometimes simple, non-pharmacological approaches to these problems can provide tremendous relief and improved quality of life.

Older age can also be a time of loss of independence. This can range from restrictions of driving privileges and financial hardship to limitations in physical mobility and cognitive function. Geriatricians routinely assess and work to improve older adults' ability to manage simple and complex activities of daily living. They strive to balance independence and self-determination with safety, and help to ease change when needed, without crisis.

For older adults, goals and values regarding quality of life (as opposed to quantity) often drive medical decision-making. Geriatricians ask about a patient's goals and values, particularly as they pertain to end-of-life care, and encourage patients to create living wills to ensure their wishes are respected.

In summary, a geriatrician manages medically complex patients while both helping to optimize the daily function, safety, and quality of life for older adults and having an ongoing dialogue regarding their goals and values of care.

## **DIAGNOSING DEMENTIA, Part 1 of a 3 Part Series**

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As we age, it is normal to notice memory problems. Names might not come as easily to us. Sometimes we walk into a room and forget what we were going to do. We might forget the details of an important event from many years ago. This is a normal part of aging and something that we all experience.

Many older adults bring up the issue of memory problems during a provider visit, with the worry that they are developing dementia. In some cases, family members will raise this concern during an office visit, as the patient is seemingly unaware of the problem.

When does memory impairment cross the line, from “normal aging” to a medical problem? As a first step, health providers try to identify at least one other area of cognitive dysfunction in addition to memory. In particular, we look for aphasia, apraxia, agnosia, and/or a decline in executive function. Aphasia is a problem with language, with naming objects and recalling appropriate words. Apraxia is forgetting how to perform routine and well-rehearsed daily tasks (like brushing your teeth or cooking a meal). Agnosia is an inability to recognize previously familiar people and things. Executive function describes being able to formulate and carry out a plan. If there is dysfunction in one of these areas, in addition to memory problems, then the diagnosis dementia should be considered.

The next step in evaluating for dementia is to assess if these problems are affecting every day function. Has the patient made mistakes with finances, or have money tasks recently been reassigned to the spouse? Has the patient done something unsafe, like leaving the stove on or forgetting to lock up at night? Has he/she gotten lost while driving, or gotten confused in a comfortable or well-known setting? If these problems are happening, then the diagnosis of dementia should be entertained.

If a patient/family reports cognitive dysfunction in at least two of the areas outlined above, and confirms that daily functioning is affected, the next step is to perform a dementia screen. There are many questionnaires to assess cognitive function, and these can be administered in about ten minutes during an outpatient visit. Most are scored on a 30-point scale, with adjustments made for educational level. In general, a score from 25-30 is usually considered normal. A score of 23-24 is usually called “mild cognitive impairment,” and can indicate a pre-dementia phase. As scores decline below 20, there is a correlation with the severity of the dementia. Of note, the clinician also evaluates for symptoms and signs of depression, which can often present in older adults as memory loss and inability to concentrate.

Next, there are a few diagnostic tests performed to evaluate for reversible causes of dementia. These include testing for hypothyroidism, Vitamin B12 deficiency, and occasionally for heavy metals or infectious diseases (e.g., Lyme, syphilis). A non-contrast computerized tomography exam of the head is ordered to evaluate for strokes, tumors, bleeding or water in the brain. Most often, these tests are normal.

**TYPES OF PROGRESSIVE DEMENTIA, Part 2 of a 3 Part Series**  
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People commonly refer to all dementias as Alzheimer's disease (AD). And while AD is the most common type of dementia seen in older adults, several other dementia syndromes exist. It is often difficult to distinguish these syndromes clinically during life (most dementia diagnoses are confirmed only at autopsy), but it is important to do so because therapy can be different. This article will review the distinguishing features of several progressive dementia syndromes.

Dementia currently affects about five million people in the US, and this number is expected to double over the next few years. The prevalence of dementia for people at age 60 is 1% and this doubles every 5 years, reaching over 30% by age 80. Research shows that over 50% of cases remain undiagnosed, even at the time of nursing home admission.

**AD** is the most common type of dementia seen worldwide, afflicting 60 - 80% of the US population with dementia. Classically, AD develops after age 60, and is characterized by short term memory loss, with distant memory remaining intact. Every day speech and social interactions remain normal, and so often dementia is only noticed when factual information is requested. As AD progresses, people lose their ability to communicate and to recognize their loved ones. Ultimately they stop eating and drinking. AD is characterized pathologically by beta-amyloid plaques and tau protein tangles.

After AD, the next most common dementia is **vascular dementia** (VD). VD results from loss of brain function related to loss of blood flow, from recurrent strokes, TIAs, or even from the effect of years of hypertension, elevated cholesterol, or diabetes mellitus. As VD is often associated with strokes, the dementia can be more stepwise, rather than gradual, in progression. VD can be seen alone, or in combination with AD – this is the most common type of “mixed dementia” where more than one pathological process exists.

The next most common dementia is called **dementia with Lewy Bodies** (DLB). DLB is a dementia with memory problems similar to AD, but people also experience hallucinations. DLB is associated with movement problems, such as rigidity and tremor. This dementia is named after the characteristic proteins found at autopsy, clumps of alpha-synuclein called Lewy bodies.

**Parkinson related dementia** (PD) occurs in patients who already have Parkinson's disease. Lewy bodies are also found at autopsy, and it is thought that DLB and PD are related. PD occurs late in the course of Parkinson's disease, and is very similar to AD in presentation.

**Frontotemporal dementia** occurs at a younger age. It is often characterized by a change in behavior and personality, and difficulty with language. An older term for this dementia is Pick's disease. There is no autopsy finding that is specific to this disease.

Other types of dementia include Jacob-Creutzfeldt Disease, dementia seen with repeated head trauma, and the reversible dementias mentioned previously – that of thyroid disease, vitamin deficiencies, normal pressure hydrocephalus, infections, and bleeding. The next article will discuss treatment and prevention.

**Dementia – Treatment and Prevention, Part 3 of 3 Part Series**  
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*This is the third article in a series on dementia. The first article explored the symptoms and diagnosis of dementia, and the second reviewed the most common dementia syndromes.*

Dementia is commonly diagnosed in the outpatient primary care setting. Typically, a patient and/or family member raise the issue of loss of memory and other cognitive function. The provider then reviews the medication list for possible provoking agents, administers a memory test, and performs a neurologic exam. Depression screening is also undertaken, as depressed elders can present with memory and concentrating problems (called pseudodementia). The workup next includes a blood sample to check for metabolic abnormalities, thyroid or vitamin deficiencies, and a non-contrast head CT to evaluate for stroke, tumors, bleeding or excess water on the brain. These tests all return as normal. At this point, the diagnosis of a nonreversible dementia is confirmed. What are the next steps?

The goal of treatment for dementia patients is to improve their quality of life and maximize functional abilities. Unfortunately, pharmacological treatment demonstrates global improvement in very few dementia patients; more commonly, a modest slowing of dementia progression is seen. Drugs called cholinesterase inhibitors are the first line treatment for mild to moderate Alzheimer's Disease and most other forms of dementia. Three medications are in this class – donepezil (Aricept), rivastigmine (Exelon) and galantamine (Razadyne). A second line agent is approved for treatment of moderate to severe dementia, called memantine (Namenda). If the patient has known vascular disease, strict control of blood pressure, diabetes, and cholesterol levels, as well as smoking cessation, is also paramount.

Beyond initiating pharmacological therapy, the provider needs to maximize quality of life thorough assessment of the patient's home environment. This is often best accomplished through an interprofessional care team. First and foremost, the patient's safety needs to be ascertained in all areas - including medications, driving, firearms, prevention of wandering and falls, and supervision in the kitchen. A home health nursing safety evaluation can be helpful in this regard. Financial and medical planning, including goals of care and safeguards against abuse and exploitation, also need to be addressed in a timely manner; elder law experts can assist in this process. Physical and occupational therapy can help to keep the patient mobile and independent longer, delaying placement. It is also important to identify and frequently evaluate the caregiver for burnout and depression. Referrals for additional support services can be made through the local area agency on aging (the Pima Council on Aging in Tucson). As the disease progresses, the patient may withdraw, stop eating, and lose control of bodily functions, necessitating placement in a long term care facility.

Current research is focusing on identifying dementia earlier in its course, through biomarkers and specialized imaging techniques. Can dementia be prevented? No recommendations currently exist for dementia prevention via lifestyle modification or medication, as the medical literature has low quality evidence in this area. It is known, however, that obesity, hypertension, smoking, diabetes, head injury, and low levels of education and mental and physical activity have negative effects on both body and brain health. It is reasonable, therefore, to recommend a *lifelong* lifestyle of mental and physical activity, a healthy diet and weight, smoking cessation and control of known diseases as a way to combat dementia in later years.

This 4-part packet can be viewed on the UARA website, as a pdf file,  
[uara.arizona.edu/newsletters/dementia](http://uara.arizona.edu/newsletters/dementia)