Alzheimer's Disease In Long-Term Care Facilities:

Where Are We Now, and Where Are We Going in the Next Few Years?

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Imagine the impact an estimated 70 million people ages 65 and older will have on our healthcare system and society by the year 2029, when the baby boomers begin to enter their golden years and develop diseases such as Alzheimer's (AD).[1] Unless medical breakthroughs identify ways to better treat or prevent such diseases, the number of those baby boomers expected to be diagnosed with AD and related dementias will rise exponentially.

Our society is quickly aging, making AD a major issue. Currently, those 65 and older with AD, which is the 5th leading cause of death for this age group, make up an estimated 5.1 million Americans.[1] Previous estimates had suggested that we would not reach this number until at least 2020, but they were wrong. The crisis came sooner than expected. By the year 2050, the projected number of those 65 and older with AD will be between 11 million and 16 million.[1] This inflation of persons with AD will place an even greater burden on the future healthcare workforce and longterm care facilities (LTC) across the globe.

A person diagnosed with AD or dementia in the early stages is usually cared for at home by either paid or non-paid help. This places a significant burden on caregivers that may need to take extended family medical leave and relinquish gainful employment. The emotional toll of caregiving can be even more devastating. As the disease progresses, more assistance is needed including the use of healthcare services such as adult day care, professional home health care and assisted living.

Eventually, the burden will rest on LTC facilities.

It is not a surprising fact that older Americans with AD and other dementias are more likely to use long term care services than those with normal cognition. Six years ago, it was reported Medicare beneficiaries with AD or other dementias were eight times more likely to stay in a skilled nursing facility than other beneficiaries without AD or dementia.[1] The burden of AD on long-term care facilities will continue to grow.

Why is diagnosing dementia in LTC residents important?

People living in a LTC setting can experience a decreased demand for participation in activities of daily living (ADLs) as these are provided by the staff. Functional decline in ADLs is typically the signpost that identifies a developing dementia, yet in many LTC settings such functional decline may not be apparent, often resulting in dementia, or an underlying cause of dementia, to be overlooked and untreated. This oversight can be quite a dangerous one. Dementia is caused by many conditions, some of which can be reversed, and symptoms of dementia can always be treated, improving the quality of life of the LTC resident and reducing LTC staff demands for such challenging residents. Screening for reversible causes of dementia that may lessen caregiver burden and improve quality of life for persons experiencing decline include laboratory testing for vitamin B12 deficiency and thyroid problems as well as routine metabolic lab tests that may already be performed regularly by primary care doctors.[2] Brain imaging (CAT scan or MRI) can detect other treatable causes of dementia such as normal pressure hydrocephalus and is also recommended by the American Academy of Neurology. [2] Research advances in diagnosis of AD Research advances in the field of AD have been propelled by the use of diagnostic biomarkers of disease rather than the detection of later onset cognitive and functional decline. [3] MRI-based assessment of brain shrinkage (atrophy) in a pattern characteristic of AD, spinal fluid markers, and direct PET-imaging based visualization of brain amyloid are pushing diagnoses earlier and allowing a more accurate prediction of impending decline. [4] Such diagnostic tools remain in the research realm currently but are poised to enter the arena of mainstream diagnosis in the upcoming years. Such tools will prove invaluable in the identification of those that suffer from or at high risk for the development of AD in the next few years. LTC facilities will need to be poised to understand the implications and financial burden of such diagnostic measures, perhaps prescreening persons for impending or undetected AD prior to admission rather than shouldering the costs of diagnosis within the financial constraints of the institution.

Current treatment options and dilemmas

Once the diagnosis of dementia or AD is made, treatment is available. There are currently four FDA approved medications to treat AD, of two different drug classes. They should be used in combination for patients in the moderate to severe stages of disease that are typical for LTC residents with dementia. The first class includes the cholinesterase inhibitors (donepezil, Aricept™; galantamine, Razadyne™; rivistigmine, Exelon™). Only one of these should be used at a time and they are all interchangeable, essentially offering no benefits of one over the other. The second class includes only memantine, Namenda™, which acts on a different brain chemical. Such agents not only slow progression of cognitive symptoms, but have also been shown to reduce comorbid symptoms such as depression, anxiety, agitation, irritability, hallucinations, delusions, and other problematic symptoms that many residents of LTC facilities with dementia experience. Their use can reduce staff demands and help maintain quality of life.

Future treatment options

While our current treatment options represent a major advance over the last decade, before which we could only provide behavioral support, they are not cures, nor do they slow the disease itself. They are mere bandaids for the symptoms. Again our research advances have brought us to the horizon of potential cures for AD.

The current focus of drug development is on disease modifying therapies that may slow or halt the disease itself.

Such agents are not designed to help with memory, thinking, behavioral or psychiatric issues directly, but instead directly target the disease process in an attempt to remove toxic proteins

from the brain and stop nerve cells from dying. Several promising agents are currently in Phase III trials here in Kentucky and across the globe.

While these agents may be too late in discovery for your current residents, they hopefully will slow the coming onslaught you will experience as an LTC professional. Just this past April, one such agent demonstrated an ability to remove amyloid plaques (toxic protein buildups) from the brains of living AD subjects. [5] This is the first clear demonstration that we can change the disease process. Will it be enough? Only time will tell.

In the meanwhile, brace yourself for the coming onslaught; work on early diagnosis and treatment; and pray with us that we find the cure we are all looking for soon!

Sources

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