Does having Alzheimer's disease and dementia affect severity of delirium?

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Forms of dementia, including Alzheimer's disease, gradually affect your cognitive function by harming your memory and your ability to think and make decisions. By 2050, experts project that 13.8 million older adults in the United States will develop Alzheimer's disease and related Dementias (ADRD). Although Alzheimer's disease is the most common form of dementia, other forms include Lewy Body dementia, frontotemporal dementia, and vascular dementia—all of which have upsetting consequences for people with dementia and their families.

Since no cure or treatment yet exists for ADRD, healthcare providers currently focus on preventing the treatable risk factors that can lead to dementia. This strategy could potentially slow the onset and progression of ADRD.

Hospitalization poses risks to people with ADRD and can have life-threatening consequences, including predisposing us to delirium (the medical term for a rapid change in mental state, often marked by confusion), a decline in mental or physical function, being admitted to long-term care facilities, and even death.

In particular, delirium can worsen the course of an illness, quicken physical and mental decline, lengthen hospital stays, and cause higher rates of hospital re-admission and death. One in 8 hospitalized people with ADRD who develops delirium will have at least one serious problem, including cognitive decline, possibly leading to admission to long-term care or death.

Here's the good news: Experts say 30 to 40 percent of delirium cases are preventable. But until now, we have not studied how delirium and its severity affect hospitalized older adults with and without ADRD.

Recently, researchers published findings from a related study, the Better Assessment of Illness (BASIL) study, in the *Journal of the American Geriatrics Society*. They created the study to examine delirium, severe delirium, and its aftermath.

The researchers enrolled 352 patients between 2015 and 2017. Patients were 70 years old or older and admitted or transferred to Beth Israel Deaconess Medical Center (BIDMC) in Boston as either emergency or elective (arranged in advance) admissions. The average age of participants was 80 and the majority of participants had at least one chronic health condition.

Eighty-five participants (24 percent) were diagnosed with likely ADRD when they entered the study. Participants with ADRD were slightly older than those without ADRD. The study continued for 12 months.

The researchers reported that 25 percent (88 out of 352) participants experienced delirium. Among the 85 participants with ADRD, 45 percent experienced delirium, compared to 19 percent of participants without ADRD who did not experience delirium. For all patients, severe delirium increased the risk of being placed in a nursing home. Patients with ADRD had more severe delirium.

The researchers concluded that their study strongly suggests the need to prevent delirium, particularly severe delirium, in patients both with and without ADRD. Targeted strategies such as the AGS CoCare: HELP(formerly the Hospital Elder Life Program), have shown that certain approaches can help prevent delirium or make it less severe.

Called "low-tech, high-touch" interventions, these techniques include helping to orient people to where they are and what time it is, preserving the sleep-wake cycle, helping people be mobile as soon as possible, making sure they're well hydrated, and correcting any vision or hearing problems. All these strategies have been shown to prevent delirium and mental and physical decline in older patients both with and without ADRD.

More information: Tammy T. Hshieh et al, Does Alzheimer's Disease and Related Dementias Modify Delirium Severity and Hospital Outcomes?, *Journal of the American Geriatrics Society* (2020). DOI: 10.1111/jgs.16420

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