

COVID-19 may disproportionately affect patients with Alzheimer's disease, dementia

The COVID-19 pandemic has impacted research, outcomes, long-term care and disparities related to Alzheimer's disease and other dementias, according to presenters at the Alzheimer's Association International Conference 2020.

Regarding its effects on research, **Gregory Jicha, MD, PhD**, chair of the Alzheimer's Association Clinical Trials Advancement and Methods professional interest area, highlighted steps to safely conduct Alzheimer's disease-related studies in the current pandemic environment.

"We have to understand that we have a unique population," Jicha said during the presentation. "Our [aging population](#) is at unique risk for COVID-19, both for infectivity as well as for serious complications. Although COVID-19 risks are high, I'd like to remind everybody that [Alzheimer's disease and related dementias] carry a 100% risk for death.

"I've had over 25 of my patients die in the last several months of [Alzheimer's disease and related dementias]. I have not had one pass from COVID-19," Jicha added.

Steps to safely conduct research among this patient population include screening for symptoms, maintaining social distancing, minimizing exposure, limiting time in the clinic and using masks, according to Jicha. He noted that his institution, the University of Kentucky, has implemented these procedures in the research center in the hope of eradicating or reducing the risk for COVID-19 infection to that of "less than a lightning strike."

According to Jicha, many promising agents for Alzheimer's disease need to be tested, and it is important to carefully navigate the pandemic and its related changing protocols, reduced recruitment and increased attrition to avoid missing important pharmacologic research opportunities.

Disparities 'unmasked'

Neelum T. Agarwal, MD, a cognitive neurologist and associate professor in the department of neurological sciences at Rush University, presented an overview of [COVID-19's cognitive effects](#). Studies have shown the virus can impact cardio-respiratory centers, as well as the blood and blood vessels. Cardiovascular and cerebrovascular risk factors figure prominently into the development of Alzheimer's disease, according to Agarwal.

"Cardiovascular and cerebrovascular factors [play a role] in changing brain structure, which can lead to dementia," she said during the presentation. "This brings us to really think about health disparities. These disparities have been unmasked and amplified by COVID-19, and it just adds another layer to our discussion regarding cognitive functioning and risk for Alzheimer's disease."

According to **Beth A. Kallmyer, MSW**, vice president of care and support for the Alzheimer's Association, COVID-19 has significantly impacted long-term care facilities. Because a large percentage of individuals living in these facilities have dementia, this patient population may be especially impacted by the virus.



Beth A.
Kallmyer

“According to the latest numbers that we have, 59,000 residents and employees of long-term care facilities have died as a result of COVID-19, which is 42% of all U.S. deaths,” Kallmyer said during the presentation. “These individuals are being impacted in significantly greater rates than the rest of society, yet we don’t have things in place to protect them.”

Long-term care facilities typically deal with staffing shortages, reimbursement challenges and infection control, but the latter is especially important and complex during a pandemic, according to Kallmyer. Further, social isolation related to quarantine measures may also be worsening patient outcomes and cognitive decline in these facilities.

Kallmyer highlighted policy recommendations made by the Alzheimer’s Association for federal and state governments to address these challenges in long-term care. Major recommendations concerned wider availability of COVID-19 testing for residents and employees, centralized reporting through a single electronic portal or similar means, surge activation to respond to outbreaks and support for long-term care providers.

“Each of these areas is very important for us to think about as we build an infrastructure to keep our vulnerable residents safe throughout this pandemic,” Kallmyer said.

‘A diverse spectrum’

Maria C. Carrillo, PhD, chief science officer of the Alzheimer’s Association, discussed racial and ethnic disparities at the intersection of the COVID-19 pandemic and Alzheimer’s disease.



Maria C. Carrillo

“African Americans are twice as likely to develop Alzheimer’s disease as whites, and Hispanics, about 1.5 times more likely than whites,” Carrillo said during the presentation. “In addition to a higher prevalence of Alzheimer’s disease and dementia, this can mean a higher likelihood of living in long-term care facilities, which results in a greater exposure to potentially suffering from COVID-19.”

Carrillo highlighted the range of social, economic and environmental factors that influence overall health and noted that these determinants are heightened during the COVID-19 pandemic, meaning they especially impact certain racial and ethnic groups.

“It’s important that studies help us understand [these issues] on a diverse spectrum, not just focusing on white America,” Carrillo said. “This also included the possibility that genetics can come into play, particularly when you’re talking about underrepresented populations. We all know that scientists and researchers can tell you how little we know about the genetics of diverse populations and how much more we are trying to do as a scientific community to understand not only its impact on Alzheimer’s and dementia, but now also for COVID-19.”