Alzheimer’s Drug Falls Short in Clinical Trial

Solanezumab, a monoclonal antibody-based treatment for Alzheimer’s disease (AD) that targets amyloid plaques, did not significantly slow cognitive decline, according to a study led by the Columbia University Irving Medical Center and published in the New England Journal of Medicine.

A total of 2,129 patients with mild dementia due to AD participated in the double-blind, placebo-controlled, phase 3 clinical trial. The study was the first major AD clinical trial to require molecular evidence of amyloid deposition in the brain for enrollment. Researchers used a cognitive test called the Alzheimer’s Disease Assessment Scale–Cognitive Subscale to measure cognitive decline, but did not observe any statistically significant benefits compared with placebo. Authors suggest that although it is not certain that this particular strategy or drug could be effective, it is possible that either not enough drug was administered or the drug needs to be administered earlier in the disease course.


Nutrition Assistance Program May Lead to Reduced Medication Nonadherence

Researchers found evidence that increasing access to the Supplemental Nutrition Assistance Program (SNAP) may lead to reduced rates of medication nonadherence, according to a study published in the American Journal of Public Health. Unaffordable medicine is one of the primary reasons older adults do not adhere to treatment regimens in the United States, and the high cost of prescription medication can lead to tradeoffs between medications and other necessities, such as food and utilities. By reducing out-of-pocket costs of food, SNAP helps older adults afford their prescription medication.

The study found that even after controlling for important predictors of cost-related nonadherence (CRN), such as health conditions, out-of-

Disruptions in Internal Body Clock May Signify Future Alzheimer’s Disease

Research conducted at Washington University School of Medicine in St. Louis indicates that circadian rhythm disruption—a disturbance known to occur in individuals with Alzheimer’s disease (AD)—occurs earlier in individuals whose memories are intact but whose brain scans show early, preclinical evidence of AD.

The study, published in JAMA Neurology, could help physicians identify individuals at risk of AD earlier than currently possible. Researchers tracked circadian rhythms in 189 cognitively normal older adults with an average age of 66 years. Some participants had brain scans to look for AD–related amyloid plaques in their brains, others had cerebrospinal fluid tested for AD–related proteins, and some had both. Of participants, 139 had no evidence of the amyloid protein that signifies preclinical AD. Most had normal sleep/wake cycles, although several had circadian disruptions linked to advanced age, sleep apnea, or other causes.

Among the 50 individuals who had either abnormal brain scans or abnormal cerebrospinal fluid, all experienced significant disruptions in their internal body clocks, determined by how much rest they got at night and how active they were during the day. Disruptions in the sleep/wake cycle remained even after researchers statistically controlled for sleep apnea, age, and other factors. More research is needed on whether disrupted circadian rhythms put individuals at risk for AD or whether AD–related changes in the brain disrupt circadian rhythms.

pocket health care costs, and prescription drug coverage, on average, SNAP participants were 4.8% less likely to engage in CRN than eligible nonparticipants. SNAP participation had an even greater impact for older adults who were food insecure and threatened by hunger.


Trends in Self-Reported Cognitive Impairment Among Racial and Ethnic Groups

According to a study led by researchers at NYU Rory Meyers College of Nursing and East Carolina University’s Brody School of Medicine, an increasing number of older adults are reporting cognitive impairment in their families over the past 2 decades. The study, published in Preventing Chronic Disease, also found ethnic and racial differences in reporting cognitive impairment.

The study sought to examine trends of self-reported cognitive impairment among five major racial/ethnic groups from 1997 to 2015 in the United States. Researchers used data from the National Health Interview Survey, including 155,682 individuals ages ≥60 in their sample. The sample included Asian American, Black, Hispanic, Native American, non-Hispanic Black, and non-Hispanic White individuals.

Researchers found that the overall rate of self-reported cognitive impairment increased from 5.7% in 1997 to 6.7% in 2015. However, the increasing trend was significant only among respondents who were White. In addition, the rates of self-reported cognitive impairment were much lower than the estimated prevalence of cognitive impairment, suggesting underreporting.


Nursing Homes May Inflate Self-Assessment Reporting to Improve Score in Medicare’s Quality Rating System

A new study of nursing homes in California, the nation’s largest system, by faculty at Florida Atlantic University and the University of Connecticut, found that some nursing homes inflate their self-assessment reporting to improve their score in the Five-Star Quality Rating System used by Medicare to help consumers.

The study, recently published in Production and Operations Management, investigated whether rating improvements reflected actual quality gains or unjustified ratings inflation. The study found that:

- nursing homes that have more to gain financially from higher ratings are more likely to improve their overall rating through self-reporting;
- little direct correlation exists between self-reported measures and on-site inspection results, either contemporaneously or over time; and
- number of resident complaints is similar for nursing homes with the same inspection rating but varies noticeably between facili-
ties with the same overall rating, suggesting inflation in self-reported measures; and

- approximately 6% of nursing homes inflated their self-reported measures, which include quality measures on patient health, as well as staffing numbers.


Alzheimer’s Disease May Not Be Caused by Amyloid Beta Protein

Researchers at the NYU School of Medicine demonstrated that the current biological understanding of Alzheimer’s disease (AD) is incomplete, suggesting that AD is likely triggered by the failure of a system that clears waste from the brain, rather than buildup of the protein amyloid beta. The study, published in PLoS One, found that buildup in the brain of amyloid beta cannot be the sole trigger of subsequent nerve damage because many relatively younger individuals who later develop the disease do not show signs of buildup, suggesting that standard diagnostic tools fail to catch future AD in many patients younger than 70.

The study, which included approximately 700 patients and was the largest of its kind, provided evidence in support of clearance theory, which holds that pumping of the heart, along with constriction of blood vessels, pushes cerebrospinal fluid through the spaces between brain cells, clearing potentially toxic proteins into the bloodstream.


Sleep, Diet, Exercise, and Social Interaction May Be the Pillars of Healthy Aging

Sleep, diet, exercise, and social interaction are four areas in which older adults can take non-drastic steps to improve their chances of aging optimally.

As individuals age, they may have a harder time getting quality, undisturbed sleep, making it important to work with primary care providers to treat problems such as sleep apnea. Older adults should also establish basic sleep hygiene measures, including a regular sleep schedule, a quiet and comfortable sleeping environment, and avoiding stimulants close to bedtime.

In addition, older adults should adopt healthy diets, for which research supports the Mediterranean diet. The Mediterranean diet reduces risk of heart disease and is associated with reduced incidence of Parkinson’s and Alzheimer’s diseases and cancer.

Furthermore, the Centers for Disease Control and Prevention recommends that individuals older than 65 exercise for at least 2 hours and 30 minutes per week, or approximately 30 minutes per day, 5 days per week. Exercise can be walking, biking, swimming, dancing, gardening, or anything that older adults find enjoyable.

Finally, older adults should have adequate amounts of social interaction, which is crucial to mental fitness but often left by the wayside as individuals age due to lack of transportation, physical issues, or other reasons. Stimulating the brain plays a vital role in combating cognitive decline.