Presence of Delirium and Dementia Related to Increased Severe Changes in Memory

A new study in JAMA Psychiatry is the first to show the multiplying effects of delirium and dementia in hospitalized older adults.

Researchers examined three European populations in Finland, Cambridge, and the United Kingdom, and examined brain specimens in 987 older adults. Each individual’s memory, thinking, and experience of delirium had been recorded over 10 years toward the end of his/her life. When these were linked with pathology abnormalities due to Alzheimer’s disease and other dementias, those with delirium and dementia changes had the most severe change in memory.

Further research is needed to understand exactly how delirium interacts with dementia and how this could be blocked.


Older Adults With Arthritis Only Need 45 Minutes of Exercise Per Week

Older adults with arthritis must keep moving to be functionally independent. However, in an examination of a goal that is daunting for most of this aging population, a new Northwestern Medicine study found that performing even one third of the recommended activity is beneficial.

Using sophisticated movement-monitoring accelerometers, researchers measured the physical activity of 1,600 adults from the nationwide research study, Osteoarthritis Initiative, who had pain, aching, or stiffness in their hips, knees, or feet. Federal guidelines suggest achieving 150 minutes of moderate activity in sessions lasting at least 10 minutes to promote good cardiovascular health, but the researchers focused on simply keeping this population functioning over 2 years.

Approximately one third of participants improved or had high function after 2 years, but those who achieved a minimum of 45 minutes of moderate activity (e.g., brisk walking) per week were 80% more likely to improve or sustain high future function over 2 years compared with those doing less. This finding was true for both men and women.


Nursing Homes Must Pay More Attention to How Advance Directives are Used

A new study by researchers at the University of Missouri School of Social Work says that more attention to how advance directives are used in nursing homes may reduce unnecessary care and save health care costs, all while respecting residents’ wishes.

Researchers analyzed more than 1,800 medical records from St. Louis area nursing homes. Fifty percent of the records contained an advance directive; however, in many cases the forms were difficult to find in the charts due to inconsistent record keeping. The researchers recommend that providers include a designated section in medical files for advance directives and that they reinforce with staff the importance of checking advance directives.

Ethical Challenges Must Be Considered in Deep Brain Stimulation Studies

Promising, early studies of deep brain stimulation (DBS) for the treatment of Alzheimer's disease have paved a path for future clinical trials, but there are unique ethical challenges with this vulnerable population regarding decision making and post-study treatment access that must be addressed, according to a new study the Journal of Alzheimer's Disease.

Approved for the treatment of movement and neuropsychiatric disorders, such as Parkinson’s disease, DBS is an invasive, surgical procedure involving the implantation of a microstimulator that sends electrical impulses to specific targets in the brain. Driven by the urgent need for effective therapies and the success of recent studies, DBS has now emerged as a possible treatment for Alzheimer's disease. However, researchers note three ethical issues that should be addressed.

Ensuring trial participants possess adequate decision-making capacity is important because they have cognitive deficits that may reasonably limit that capacity and thereby compromise informed consent. DBS for trials must have a robust mechanism for detecting loss of decision-making capacity and protecting the interest of patients during the trial.

Therapeutic misconception is another concern. Patients with Alzheimer’s disease may agree to DBS as a last resort. Such desperation may alter their perception that the primary goal of the study is for health benefits and not knowledge about the efficacy of the device. Left unchecked, it could distort patients’ understanding of the risks and benefits of DBS.

Another question to be asked at the end of a trial is whether patients who have benefited from the device should continue to receive treatment. This question is particularly salient considering the high cost of DBS and the fact that the device may be with the patient for many years after the trial ends. Denying patients access to the only intervention known to alleviate their symptoms is tantamount to violating the sacrosanct principle of “do no harm.”

Once post-trial access is accepted by a research team, the challenge is financial responsibility. Patients, together with sponsors, investigators, health care systems, insurance, governments, and non-profit organizations must partner to share responsibility and negotiate continued access arrangements prior to study enrollment.


Nurse Practitioners Providing More House Calls Than Any Other Specialty

Nurse practitioners (NPs) are increasingly providing house calls for frail, older adults, eclipsing any other specialties in number of home visits in 2013, new research reveals. However, regulations are hindering the profession’s growth in many states even as demand increases for in-home care.

In 2013, NPs provided more than 1.13 million home visits, surpassing the 1.08 million made by internal medicine physicians, which is the reverse of 2012, when internal medicine physicians made 1.08 million visits and NPs made <925,000 visits.

Researchers reviewed Medicare data to learn how many house calls were made in 2012 and 2013, who made them, and where they took place. They found that the total number of home visits made by all specialties grew from 4.9 million to approximately 5.2 million. NPs provided care over the largest geographic area, and most who made >1,000 house calls in 2013 were in the eastern half of the United States, with the strongest concentration in the Northeast. Nursing home residents were more likely to receive house calls than those who were homebound.

Researchers recommend that states re-examine their regulations, and that nursing schools offer training programs in home-based primary and palliative care.