

Intervention for Cognitive Reserve Enhancement in delaying the onset of Alzheimer's Symptomatic Expression: The INCREASE study

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Country

USA

Title of project or programme

Intervention for Cognitive Reserve Enhancement in delaying the onset of Alzheimer's Symptomatic Expression: The INCREASE study

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 1,752,735.78

Start date of award

15/07/2016

Total duration of award in years

1

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Brain Disorders... Clinical Research... Clinical Research - Extramural... Clinical Trials and Supportive Activities... Dementia... Neurodegenerative... Neurosciences... Prevention... Translational Research

Research Abstract

Alzheimer's disease (AD) represents one of the most important public health issues our society is facing today. An estimated 5 million people age 65 and older in the United States (US) are currently living with AD, and this number may nearly triple by 2050. To address this impending population burden, the National Alzheimer's Project Act (NAPA) 2015 report emphasized the need for identifying preventive strategies that can delay symptomatic disease onset. While much emphasis has been placed on developing and testing effective disease-modifying strategies targeting this asymptomatic preclinical phase of AD (pAD), little emphasis has been placed on currently available strategies that target cognitive reserve, resulting in (1) delaying symptom onset, (2) shortening the overall course of symptomatic disease, and (3) substantially reducing the financial and societal impact of AD. We hypothesize that targeted reductions in inappropriate medication use (Beers Criteria 2015), will bolster cognitive reserve in subjects at risk for AD, delaying the onset of clinical symptoms, and reducing the prevalence and duration of symptomatic disease. The impact of this strategy, if successful, includes a dramatic reduction in overall health care expenditures for the millions affected by AD by delaying the symptomatic phase of disease in accord with NAPA aims. Our specific aims are: Specific Aim 1. Conduct a 12-month, randomized, placebo-controlled trial to evaluate the impact of our patient-centered, pharmacist-physician team MTM intervention in reducing unnecessary and inappropriate medication use in community-dwelling, elderly, non-demented subjects. Primary outcome measures will include pre- to post- intervention measures of: (1) use of inappropriate medications as measured by the Medication Appropriateness Index (MAI); 2) Cognitive Reserve Change Score (CRCS) defined as the difference in the scopolamine- challenged vs unchallenged measures on the neurocognitive score. Specific Aim 2 Evaluate the impact of preclinical amyloid burden on cognitive reserve deficits and decline (measured as CRCS) to evaluate efficacy of delaying symptomatic disease progression in pAD. While not eliminating AD or shortening duration of biological disease, the delay in symptom onset and progression to functional decline resulting from reduction in inappropriate medication use could lessen AD prevalence and significantly reduce healthcare expenditures related to not only AD, but potentially all forms of dementia involving a prodromal asymptomatic period. Study results would enable the larger implementation of similar medication management strategies in clinical practice to address the need for multifaceted preventive strategies to maintain cognitive health in the aging population.

Lay Summary

Public Health Relevance Statement The study will examine the impact on cognitive reserve of a pharmacist-physician patient-centered medication therapy management intervention to address inappropriate medication use as identified by the Beers 2015 list. By bolstering cognitive reserve, our project will directly address the National Alzheimer's Project Act 2015 priorities serving to delay onset of symptoms in preclinical dementia. The results of this study will provide valuable insights on how to expand this intervention to reduce the prevalence and associated healthcare costs of symptomatic Alzheimer's disease.

Further information available at:

Types:

Investments > €500k

Member States:

United States of America

Diseases:

Alzheimer's disease & other dementias

Years:

2016

Database Categories:

N/A

Database Tags:

N/A