Mersey Care NHS Foundation Trust

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Studies

Income level and the risk of incident dementia among adults aged ≥50 with newly diagnosed type 2 diabetes: a population-based cohort study using the NHIS-Senior database in South Korea

Among middle-aged and older adults with newly diagnosed T2DM, having a lower income was significantly associated with elevated dementia risks, with the greatest risk observed among low-income women. The association between income level and dementia risk differed by dementia subtype, with vascular dementia and Alzheimer's disease being more prevalent among low-income men and low-income women, respectively. These findings highlight the need for sex-specific and income-specific dementia prevention strategies.

Association between the use of anti-herpetic drugs and subsequent initiation of Alzheimer's disease drug treatment: Dutch population-based inception cohort study

AHD exposure was consistently associated with markedly lower risk of AD treatment initiation, with similar findings observed in recent years. These findings support the hypothesis that herpesvirus reactivation may contribute to AD pathogenesis and suggest antiviral therapy could have preventive implications. Confirmation through prospective studies and randomised trials is needed.

Development and temporal validation of a machine learning model to estimate total MoCA scores from telephone-based items in patients with mild cognitive impairment

Our machine learning model accurately and reliably predicts total 30-point MoCA scores using only telephone-based information. The model demonstrated satisfactory generalisation performance on a temporally separated cohort, supporting its potential clinical applicability pending external validation.

Associations of self-reported obstructive sleep apnea with cognition and dementia risk in cognitively unimpaired middle-aged adults

Participants with OSA demonstrated poorer memory than those without OSA, although this association was attenuated after adjusting for vascular risk. Individuals with OSA (with or without APOE ε4) had significantly higher CAIDE scores than those with neither risk factor. APOE ε4 did not moderate OSA-cognition associations.

Plasma-based neurobiological protein biomarkers as predictors of dementia progression: Insights from longitudinal aging study in India – Diagnostic assessment of dementia

Plasma biomarkers effectively estimate dementia progression rates. These findings support using blood-based markers to monitor and track disease trajectory in the Indian population, offering significant clinical utility for early intervention.

Dementia blood biomarkers in the context of post-stroke cognitive outcomes: Systematic review and evidence synthesis

NfL and GFAP show the most consistent associations with post-stroke cognition, particularly acutely. Evidence for amyloid and tau was inconsistent between studies, and PlGF remains unexplored.

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[Assigning Probable Dementia Status Using Routinely Collected Electronic Health Record Data]
A probabilistic computational phenotype derived from routinely collected EHR data accurately reproduced clinician-adjudicated ADRD status and demonstrated net clinical benefit, including among ED patients whose ADRD was not captured by diagnosis codes. Adoption of this replicable framework may enable healthcare organizations to strengthen ADRD surveillance and reduce underdiagnosis.

[Breaking barriers: Enhancing access to dementia clinical trials in the United Kingdom—Insights from the Scientific Advisory Board of the Dame Barbara Windsor Dementia Goals Programme]
The recommendations focus on three areas: (i) establishing a new dynamic national patient registry for clinical trial recruitment; (ii) the use of biomarkers to improve early and accurate diagnosis; and (iii) a framework for end-to-end implementation across the landscape of healthcare, research and regulators. A Brain Aging Registry for Biomarkers, Access to trials, Research and Adoption would support recruitment, monitoring, and personalized care. Embedding digital and biomarker innovations into routine care would improve personalized and equitable dementia services, with earlier diagnosis and more effective prevention. Robust patient and public involvement is required, to ensure transparency, trustworthiness, and meaningful participation.

News

[Dementia deaths among women at highest level in five years]
In 2025, the number of women who died from dementia in England and Wales was the second highest ever recorded.

[New clinical fellowships set to bring better diagnosis and treatments closer for people with dementia]
Six new Clinical Fellowships will support clinicians to bring cutting-edge research closer to the people who need it most, from making brain scanning more accessible, to improving diagnosis for less common forms of dementia, exploring new ways to treat symptoms, and helping more people take part in clinical trials.

[Scientists discover mechanism for brain cell death in Alzheimer's disease]
Researchers at King's College London and the UK Dementia Research Institute have uncovered evidence of a newly identified mechanism of cell death, known as karyoptosis, which could open the door to entirely new treatments aimed at slowing or preventing neurodegeneration. The findings were published in Nature Communications.

[How Heart Health Can Affect Your Alzheimer's Risk]
Heart health is closely tied to brain health, a growing body of research shows. A new study helps pinpoint which specific aspects of cardiovascular health are most closely associated with an increased risk for Alzheimer's disease. For the study, researchers at Michigan Technological University looked at nearly 800,000 men and women who were part of two large and ongoing studies of health and aging: The UK Biobank in Britain, and the All of Us Research Program in the United States.

[Problems with cell's 'plumbing' linked to signalling issues]
New research led by Prof Edward Avezov (UK DRI at Cambridge) reveals how the architecture of the cell's transport network, the endoplasmic reticulum, can go awry and lead to problems with signalling in the brain cell in conditions like Alzheimer's. The study, published in Advanced Science, could lead to new therapeutic approaches for neurodegenerative conditions.