

physical activity) and vitality-based physical frailty (encompassing weight loss and exhaustion). Only performance-based physical frailty was associated with higher levels of inflammatory markers. **Conclusion** The physical frailty phenotype is not a unidimensional construct in individuals with depression. Only performance-based physical frailty is associated with low-grade inflammation in LLD, which might point to a specific depressive subtype.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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FC35

Antidepressants and mortality risk in a dementia cohort – data from SveDem, the Swedish Dementia Registry

D. Enache^{1,*}, S.M. Fereshtehnejad², P. Cermakova², S. Garcia-Ptacek², I. Kåreholt², K. Johnell², D. Religa², V. Jelic², B. Winblad², C. Ballard³, D. Aarsland², J. Fastbom², M. Eriksdotter²

¹ Karolinska Institute, Stockholm, Sweden

² Karolinska Institute, Department of Neurobiology, Care Sciences and Society, Stockholm, Sweden

³ King's College London, Wolfson Centre for Age-Related Diseases, King's College, London, United Kingdom

* Corresponding author.

Background The association between mortality risk and use of antidepressants in people with dementia is unknown.

Objective To describe the use of antidepressants in people with different dementia diagnoses and to explore mortality risk associated with use of antidepressants 3 years before a dementia diagnosis.

Methods Study population included 20,050 memory clinic patients from Swedish Dementia Registry diagnosed with incident dementia. Data on antidepressants dispensed at the time of dementia diagnosis and during three-year period before dementia diagnosis was obtained from the Swedish Prescribed Drug Register. Cox regression models were used.

Results During a median follow-up of 2 years from dementia diagnosis, 25.8% of dementia patients died. A quarter (25.0%) of patients were on antidepressants at the time of dementia diagnosis while 21.6% used antidepressants at some point during a three-year period before a dementia diagnosis. Use of antidepressant treatment for 3 consecutive years before a dementia diagnosis was associated with a lower mortality risk for all dementia disorders (HR: 0.82, 95% CI: 0.72–0.94) and in Alzheimer's disease (HR: 0.61, 95% CI: 0.45–0.83). There were no significant associations between use of antidepressant treatment and mortality risk in other dementia diagnoses.

Conclusion Antidepressant treatment is common among patients with dementia. Use of antidepressants during prodromal stages may reduce mortality in dementia and specifically in Alzheimer's disease.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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FC38

Validity of the Geriatric Depression Scale-30 against the gold standard diagnosis of depression in older age: The GreatAGE Study

M. Lozupone^{1,*}, F. Veneziani¹, I. Galizia¹, L. Lofano¹, D. Montalbò¹, S. Arcuti², R. Tortelli², M.R. Barulli², R. Capozzo², C. Bonfiglio³, F. Panza², D. Seripa⁴, O. Todarello¹, G. Logroscino²

¹ Psychiatric Unit, Basic Medical Sciences, Neurosciences and Sense Organs, University of Bari Aldo Moro, Bari, Italy

² Pia Fondazione "Cardinale G. Panico", Tricase, Department of Clinical Research in Neurology, University of Bari Aldo Moro, Tricase LE, Italy

³ IRCCS "S. De Bellis", Epidemiology and Biostatistics Laboratory, Castellana Grotte BA, Italy

⁴ Geriatric Unit & Laboratory of Gerontology and Geriatrics, Department of Medical Sciences, IRCCS "Casa Sollievo della Sofferenza", San Giovanni Rotondo FG, Italy

* Corresponding author.

Introduction Depression is a common disorder in late-life. Structured clinical interviews may be less efficient compared to self-administered questionnaires, but provide more accurate findings in terms of diagnosis. No population-based studies with both these depression assessment instruments have been ever performed.

Objectives To estimate the GDS-30 accuracy for depression assessment against the gold standard [Semi-structured Clinical Diagnostic Interview for DSM-IV-TR Axis I Disorders (SCID)] in subjects 65+ years in a random sampling of the general population.

Methods The sample was collected in a population-based study (GreatAGE) conducted among elderly residents in Castellana, Southeast Italy. It includes 597 participants (57.62% males, mean age 73 years). Depression was assessed through the GDS-30 and the SCID, both double-blinded administered respectively by a trained neuropsychologist and psychiatrist. The GDS-30 screening performances were analyzed using ROC curves.

Results According to the gold standard SCID, the rate of depressive disorder was 10.22% (15.81% of women; 6.1% of men) while with GDS-30 instrument 12.06% of the residents met the depression cutoff. Only 36.1% of GDS cases were true positive. At the optimal cutoff score (> 5), GDS had 62% sensitivity and 81% specificity. Using a more conservative cutoff (> 9), the GDS-30 specificity reached 91% while sensitivity dropped to 43%.

Conclusions These preliminary results from the first population-based study that compares GDS-30 and SCID showed that the GDS-30 identified adequate levels of screening accuracy (AUC 0.76) compatible with scores established in community settings.

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FC39

Specific personality changes in subjects with MCI and mild dementia are associated with cerebral Alzheimer's pathology as measured by CSF biomarkers

D. Tautvydaitė^{1,*}, J.P. Antonietti², A. Von Gunten¹, H. Henry³, J. Popp¹

¹ Lausanne University Hospital, CHUV, Service of Old Age Psychiatry, Department of Psychiatry, Lausanne, Switzerland

² University of Lausanne, Faculty of Social and Political Sciences, Institute of Psychology, Lausanne, Switzerland

³ Lausanne University Hospital, CHUV, Service of Biomedicine, Lausanne, Switzerland

* Corresponding author.

Introduction Specific changes in personality profiles may represent early symptoms of Alzheimer's disease (AD). Knowledge about relationship between personality changes and biomarkers of cerebral pathology can contribute to early diagnosis of AD.

Objectives To investigate to what extent the personality changes predict the cerebral AD pathology.

Aims To describe the relationship between the personality changes and pathological cerebro-spinal fluid (CSF) biomarkers.

Method One hundred and ten subjects, of whom 57 patients with mild cognitive impairment (MCI), 9 subjects with mild dementia, and 44 healthy controls had an extensive medical and neuropsychological examination as well as lumbar puncture to evaluate concentrations of CSF biomarkers of AD pathology [amyloid- β_{1-42} ($A\beta_{1-42}$), phosphorylated tau (ptau-181), and total-tau (tau)]. The proxies of the participants completed the Revised NEO Personality Inventory (NEO-PI-R) to assess subjects' personality at the time being and 5 years retrospectively.

Results In a hierarchical multivariate regression analysis, including age, gender, education, Mini Mental State Examination (MMSE), and APOE ϵ 4 status, lower $A\beta_{1-42}$ concentrations in CSF were associated with increasing neuroticism, and decreasing extraversion and conscientiousness. Decreasing extraversion, openness to experience and conscientiousness were associated with higher tau/ $A\beta_{1-42}$ ratio, and higher ptau-181/ $A\beta_{1-42}$ ratio was related to decreasing extraversion. Personality changes in the domain of agreeableness did not yield any significant effect as a predictor on any of CSF biomarkers.

Conclusions Our findings suggest that early and specific changes in personality traits are associated with cerebral AD pathology, in particular with amyloid pathology, and may serve as clinical signs to consider when evaluating MCI and mild dementia.

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FC40

Diuretic medication use reduces incident dementia risk: A meta-analysis of prospective studies

P. Tully^{1,*}, O. Hanon², S. Cosh³, C. Tzourio⁴

¹ University of Adelaide, Medicine, Adelaide, Australia

² Inserm, Université Paris Descartes, Service de Gériatrie, Paris, France

³ University of Adelaide, Psychology, Adelaide, Australia

⁴ University of Bordeaux, Neuroepidemiology, Bordeaux, France

* Corresponding author.

Introduction Numerous observational studies suggest that blood pressure management with antihypertensive drugs may be effective in reducing dementia risk.

Objective To quantify dementia risk in relation to diuretic medication use.

Methods Electronic databases were searched until June 2015. Eligibility criteria: population, adults without dementia at baseline from primary care, community cohort, residential/institutionalized or randomized controlled trial (RCT); exposure, diuretic medication; comparison, no diuretic medication, other or no antihypertensive medication, placebo-control; outcome, incident dementia in accordance with standardized criteria. Adjusted hazard ratios (HR) with 95% confidence intervals (CI) were pooled in fixed-effects models with RevMan 5.3. The overall quality and strength of evidence was rated with GRADE criteria.

Results Fifteen articles were eligible comprising a pooled sample of 52,599 persons and 3444 incident dementia cases (median age 76.1 years, 40% male) with a median follow-up of 6.1 years. Diuretic use was associated with 17% reduction in dementia risk (HR 0.83; 95% CI 0.75 to 0.90) and a 21% reduction in Alzheimer's disease risk (HR 0.79; 95% CI 0.68 to 0.93). GRADE was rated as moderate. Risk estimates were consistent comparing monotherapy versus combination therapy, study design and follow-up. Meta-regression did not suggest that age, gender, systolic blood pressure, attrition, mortality rate, education, cognitive function, stroke, Apolipoprotein E allele, heart failure or diabetes altered the primary results.

Conclusions Diuretic medication was associated with a consistent reduction in dementia and Alzheimer's disease risk and the absence of heterogeneity points to the generalizability of these findings.

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Mental health policies

FC41

Changes in prescribing patterns of benzodiazepines after training of general practitioners

T. Alves-dos-Reis^{1,2,*}, A.L. Papoila³, R. Gusmão⁴

¹ Hospital do Espírito Santo de Évora, Psiquiatria e Saúde Mental, Évora, Portugal

² NOVA Medical School Faculdade Ciências Médicas, Mental Health Department, Lisbon, Portugal

³ NOVA Medical School Faculdade Ciências Médicas, Biostatistics, Lisbon, Portugal

⁴ Instituto de Saúde Pública da Universidade do Porto, Instituto Saúde Pública, Porto, Portugal

* Corresponding author.

Introduction Benzodiazepines are the most utilized anxiolytic and hypnotic drugs. The high consumption of benzodiazepines has been a concern due to reported side effects of long-term use and dependence. Portugal has the highest benzodiazepine utilization in Europe.

Objectives To analyze the change in general practitioners' (GPs) benzodiazepine prescription pattern after an intervention period.

Methods An educational session was delivered to a group of intervened GPs. The benzodiazepine prescription pattern of intervened group was compared to the pattern of a non-intervened matched group from the same region, and of another non-intervened matched group from a different region. The research time frame was 12 months before and after intervention. The analysis of the prescription trends used the defined daily dose (DDD) and defined daily dose per 1000 patients per day (DHD) methodology. The statistical methods consisted of segmented regression analysis.

Results There was a decrease in benzodiazepine prescription pattern of intervened GPs after intervention ($P=0.005$). There was also a decrease in benzodiazepine prescription pattern for the non-intervened group from the same region ($P=0.037$) and for the non-intervened group from a different region ($P=0.010$). Concerning an analysis by gender, female gender prescribed a higher amount of benzodiazepines. The intervened female gender prescribers presented the highest decrease in prescription trend after intervention ($P=0.008$).

Conclusions Intervention was effective in reducing benzodiazepine prescription after intervention. It demonstrates that a single intervention has a positive impact on improving prescription trends. The replication of this intervention might be an opportunity for changing the worrying benzodiazepine utilization in Portugal.

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