

CO1: ONE-CARBON METABOLISM BIOMARKERS AND COGNITIVE DECLINE IN THE VERY OLD: THE NEWCASTLE 85+ STUDY

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INTRODUCTION: Although the biological rationale for the association between folate, vitamin B12 and homocysteine with cognitive function seems plausible, conflicting results have been reported.

OBJECTIVES: This study aimed to determine the associations between one-carbon (1-C) metabolism biomarkers (folate, vitamin B12 and homocysteine), and cognitive impairment at baseline and the rate of cognitive decline over 5 years in the very old.

METHODOLOGY: The Newcastle 85+ Study was a prospective longitudinal study of 765 participants initially aged 85 years. Global cognition was measured by the Standardized Mini-mental State Examination (SMMSE) at baseline, and at 3 and 5 years of follow-up and, attention-specific cognition with the Cognitive Drug Research (CDR) System at baseline, and at 1.5 and 3 years of follow-up. Baseline red blood cell folate (RBC folate), plasma vitamin B12 and total homocysteine (tHcy) concentrations were determined by immunoassay. Linear mixed models were used to estimate the associations between quartiles of 1-C metabolism biomarkers and cognition over 3 (CDR) and 5 years (SMMSE).

RESULTS: Compared to participants in the lowest quartile of RBC folate concentrations (<612 nmol/L), those in the highest quartile of RBC folate concentrations (>1280 nmol/L) had 1 more point on the SMMSE at baseline ($\beta=+1.02$, $SE=0.43$, $p=0.02$). Those in quartile 4 of tHcy (>21.4 $\mu\text{mol/L}$) had 1 point less in the SMMSE at baseline than those in the lowest quartile (<13.5 $\mu\text{mol/L}$) ($\beta=-1.05$, $SE=0.46$, $p=0.02$). Plasma vitamin B12 was not predictive of global or attention-specific cognition at baseline and at follow-up. None of the 1-C metabolism biomarkers except tHcy was associated with the rate of decline in attention scores over 3 years.

CONCLUSIONS: RBC folate and tHcy but not plasma vitamin B12 were associated with better global cognition in the very old at baseline but were not predictive of rate of decline over 5 years.

CO2. NUTRITIONAL STATUS AMONG PORTUGUESE NURSING HOMES RESIDENTS: PREVALENCE

AND PSYCHOSOCIAL ASSOCIATED VARIABLES (PEN-3S STUDY)

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INTRODUCTION: Large epidemiological international studies identify malnutrition as a common problem in older adults with negative health outcomes, including decreased quality of life, medical complications, hospitalization and higher mortality. In Portugal, nationally representative data about nutritional status in older adults living in nursing homes is missing.

OBJECTIVES: (a) To assess nutritional status among the Portuguese population aged 65 and over living in nursing homes and (b) To identify variables associated with nutritional status.

METHODOLOGY: This nationally representative cross-sectional study collected data through face-to-face structured interviews and anthropometric measurements performed by trained nutritionists. All older adults from randomly selected nursing homes, without severe dementia and not bedridden, were invited to participate. Nutritional status was assessed by the full Mini Nutritional Assessment (MNA[®]), depression with the Geriatric Depression Scale 15, instrumental activities (functionality) with the Lawton Scale and loneliness through the UCLA Loneliness Scale.

RESULTS: Overall, 1186 nursing homes residents (mean age 83.4 \pm 7.1 years; 27.2% men) voluntarily enrolled in this study (participation rate=93%). Mean BMI was 27.5 Kg/m² (95% CI: 27.0-27.8 Kg/m²), and 34.7% (95% CI: 30.6-39.1%) had a BMI over 30 Kg/m². According to the MNA, 4.8% (95% CI: 3.2-7.3%) were classified as malnourished and 38.7% (95% CI: 33.5-44.2%) were at risk of malnutrition. These percentages were significantly higher for women than men ($p<0.001$). Logistic regression models showed that lower functionality and depression were associated with risk of malnutrition (OR= 5.55 and 3.56 respectively, $R^2= 0.22$ $p<0.001$).

CONCLUSIONS: The estimated prevalence of malnutrition and risk of malnutrition, as well as the associated variables stress out the need for defining and implementing public health policies for nursing homes focused on individuals' autonomy and mental health promotion, together with adequate nutritional support and monitoring.

CO3. ESTIMATIVA DE SUB- E SOBRE-DECLARAÇÃO DA INGESTÃO ENERGÉTICA TOTAL: PREVALÊNCIA E DETERMINANTES – IAN-AF 2015-2016

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