

Abstract

Sarcopenia Prevalence and Risk Factors among Residents in Aged Care †

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Abstract: Sarcopenia is defined as the age-related decline in muscle mass and function and is associated with adverse health outcomes and the loss of independence. The aim of this study was to evaluate the prevalence and risk factors of sarcopenia among older adults living in Residential Aged Care (RAC). This cross-sectional study recruited 91 older adults (63% women), with a mean age of 86.0 ± 8.3 years, across three RAC facilities within Auckland, New Zealand. Personal interviews were conducted, and physical measurements were taken by trained researchers. Using the European Working Group on Sarcopenia in Older People criteria, sarcopenia was diagnosed from the assessment of appendicular muscle mass/height², using an InBody S10- body composition analyser and a SECA portable stadiometer; grip strength using a JAMAR handheld dynamometer; and physical performance with a 2.4 m gait speed test. Demographic, anthropometric and health data were collected. Malnutrition risk was assessed using the MNA-SF, and depression was assessed using the Geriatric Depression Scale. Most (83%) residents were malnourished or at risk of malnutrition, half (52%) had > five comorbidities and 44% took > seven medications. Overall, 41% of the participants were found to be sarcopenic. Univariate logistic regression found increasing age, lower MNA-SF score, lower percent body fat, higher depressive symptoms and hospital versus rest home level of care were associated with sarcopenia. Multivariate regression analysis showed that only lower body mass index (BMI) (OR = 1.4, 95% CI: 1.1, 1.7, $p = 0.003$) and lower MNA-SF scores (OR = 1.6, 95% CI: 1.0, 2.4, $p = 0.047$) were predictive of sarcopenia after controlling for age, level of care, depression and number of medications. Among these older residents, a high prevalence of sarcopenia was observed. Both low BMI and low MNA-SF scores were predictive of sarcopenia. These findings support the need for regular screening to identify the risk of malnutrition and a rationale for effective exercise and dietary interventions in older adults living in RAC.

Keywords: sarcopenia; aged care; malnutrition



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