Nutritional risk as a predictor of short-term outcomes in a prospective cohort of elderly patients with cancer

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Background: To determine if the nutritional risk identified by the Mini Nutritional Assessment Short-Form (MNA®-SF) is an independent predictor of short-term outcomes (infection, hospitalization and premature death).

Methods: prospective cohort study of elderly patients (≥60 years) with a recent diagnosis of cancer admitted to an outpatient oncology unit was performed. Sociodemographic and clinical variables and MNA®-SF were collected at baseline. The outcomes were healthcare-associated infection, hospitalization and death. Data were analysed using the multivariate Cox proportional hazards models. Overall survival was estimated using the Kaplan–Meier method and survival curves were compared using the Log rank test.

Results: the cohort consisted of 608 elderly patients followed for 180 days. The mean age was 71.9 years (range: 60–96) and 50.2% participants were at risk of malnutrition as measured by the MNA®-SF. During follow-up, 35.5% of participants were hospitalized, 29.4% had healthcare-associated infections and 16.4% died. After adjustment for age, site and stage of cancer, the multivariate regression Cox model showed that being undernourished was an independent predictor of infection (adjusted Hazard Ratio aHR = 1.88, 95% CI 1.32–2.67, p < 0.001) hospitalization (HR = 1.5, 95% CI 1.10–2.06, p = 0.012) and death (HR = 3.12, 95% CI: 1.74–5.78, p < 0.001).

Conclusions: Nutritional risk at admission was identified as a significant predictor of risk for premature death, infection, and need for hospitalization in elderly cancer patients. The use of MNA®-SF should be incorporated into regular geriatric assessment of older patients with cancer.

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