

AND/ASPEN and GLIM Malnutrition Diagnostic Tools Identify Similar Malnutrition-Related Risk Factors

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Objectives: Our aim is to determine whether different malnutrition diagnostic tools [European Society of Clinical Nutrition and Metabolism (ESPEN), Academy of Nutrition and Dietetics/American Society of Parenteral and Enteral Nutrition (AND/ASPEN) and the Global Leadership Initiative on Malnutrition (GLIM)] are associated with common malnutrition-related risk factors in a sample of newly admitted hospital patients.

Methods: This study is a prospective observational study. Newly admitted hospital patients were screened for nutritional risk. At-risk patients were then assessed for malnutrition using ESPEN, AND/ASPEN and GLIM criteria. Bivariate analyses were computed for all predictors and tested with the result of the nutritional assessment of each of the diagnostic tools. Similarly, a logistic regression was then conducted to determine the predictors associated with each malnutrition diagnostic criteria.

Results: 578 patients were screened for malnutrition, of which 121 (20.93%) were nutritionally at risk and were subjected to nutritional assessment. The regression model suggested that the presence of pressure ulcers (OR 21.252, 95% CI 4.495–100.485), higher Charlson Comorbidity Index (CCI) score (OR 1.321, 95% CI 1.098–1.591), lower Body Mass Index (BMI) (OR 0.478, 95% CI 0.389–0.588), and older age (OR 1.035, 95% CI 1.005–1.065) were significant predictors of malnutrition diagnosed on ESPEN criteria. While female gender [(OR 2.406, 95% CI 1.446–4.004); (OR 2.300; 95% CI 1.397–3.786)], lower BMI [(OR 0.842, 95% CI 0.792–0.895); (OR 0.835 95% CI 0.785–0.888)], higher CCI score [(OR 1.323, 95% CI 1.185–1.477); (OR = 1.294, 95% CI 1.164–1.438)] and pressure ulcers presence [(OR 15.501, 95% CI 3.650–66.661); (OR 15.816; 95% CI 3.683–67.926)] were significant predictors of malnutrition diagnosed through AND/ASPEN and GLIM criteria respectively. Admission to the orthopedics unit indicated 91% lower risk of malnutrition on both tools respectively [(OR 0.090, 95% CI 0.008–0.968); (OR 0.090, 95% CI 0.008–0.962)].

Conclusions: The presence of pressure ulcers, higher CCI score and lower BMI were the significant predictors that were associated with malnutrition on all tools. AND/ASPEN and GLIM diagnostic tools predicted the same risk factors.

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