Nutritional Risk in Emergency-2017: A New Simplified Proposal for a Nutrition Screening Tool

Abstract

Background: There are many nutrition screening tools currently being applied in hospitals to identify risk of malnutrition. However, these models are not usually employed to take into account the importance of each variable included in the instrument. The purpose of this study was to describe the characteristics of a sample of patients, evaluate the concurrent and predictive validities of a new screening tool of nutrition risk.

Methods: A prospective study with a cohort design was carried out in a general hospital. A total of 162 patients were included, of whom 80 were admitted to the emergency ward and 82 to the medical ward. The data collection instrument consisted of the Nutrition Risk in Emergency-2017 (NRE-2017) tool applied to all patients. Length of stay in hospital and mortality were considered as endpoints. The concurrent validity was tested by comparing the Nuritional Risk in Emergency (NRE)-2017 to the other tools.

Results: A total of 162 patients were included, of whom 80 were admitted to the emergency ward and 82 to the medical ward. The NRE-2017 showed good concurrent validity.

Conclusions: The NRE-2017 is a new simplified proposal for a nutrition screening tool that is valid and can be applied in emergency units.

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The NRE-2017 score was composed of 6 questions (advanced age, metabolic stress of the disease, disease consistency, unintentional weight loss, and muscle mass loss) with answers yes or no. The prevalence of nutrition risk was assessed using cutoff points of 1.0 and 1.5, respectively. The NRE-2017 showed a satisfactory power to identify risk (cutoff points of 1.0 and 1.5, respectively).

According to the NRE-2017, patients at risk of malnutrition have twice as high a relative risk of mortality compared to those without risk. The hazard ratio for mortality was 2.78 (1.03-7.49) when the cutoff adopted by the NRE-2017 was 1.5 points.

Conclusively, the NRE-2017 is a nutrition screening tool which uses 6 bi-categoric features to detect the risk of malnutrition, and it presented a good reliability.