Abstract

Aim: To ratify previous validations of the CONUT nutritional screening tool by the development of two probabilistic models using the parameters included in the CONUT, to see if the CONUT’s effectiveness could be improved. Methods: It is a two step prospective study. In Step 1, 101 patients were randomly selected, and SGA and CONUT was made. With data obtained an unconditional logistic regression model was developed, and two variants of CONUT were constructed: Model 1 was made by a method of logistic regression. Model 2 was made by dividing the probabilities of undernutrition obtained in model 1 in seven regular intervals. In step 2, 60 patients were selected and underwent the SGA, the original CONUT and the new models developed. The diagnostic efficacy of the original CONUT and the new models was tested by means of ROC curves. Both samples 1 and 2 were put together to measure the agreement degree between the original CONUT and SGA, and diagnostic efficacy parameters were calculated. Results: No statistically significant differences were found between sample 1 and 2, regarding age, sex and medical/surgical distribution and undernutrition rates were similar (over 40%). The AUC for the ROC curves were 0.862 for the original CONUT, and 0.839 and 0.874, for model 1 and 2 respectively. The kappa index for the CONUT and SGA was 0.680. Conclusions: The CONUT, with the original scores assigned by the authors is equally good than mathematical models and thus is a valuable tool, highly useful and efficient for the purpose of Clinical Undernutrition screening.

Keywords

Nutritional screening, CONUT, Clinical undernutrition, Serum albumin, Total cholesterol.