Abstract

Background: The serious problem of hospital undernutrition is still being underestimated, despite its impact on clinical evolution and costs. The screening methods developed so far are not useful for daily clinical practice due to their low effectiveness/cost ratio. Objective: We present an screening tool for CONtrolling NUTritional status (CONUT) that allows an automatic daily assessment of nutritional status of all inpatients that undergo routine analysis. Design: The system is based on a computer application that compiles daily all useful patient information available in hospital databases, through the internal network. It automatically assesses the nutritional status taking into account laboratory information including serum albumin, total cholesterol level and total lymphocyte count. We have studied the association between the results of the Subjective Global Assessment (SGA) and Full Nutritional Assessment (FNA) with those from CONUT, in a sample of 53 individuals. Results: The agreement degree between CONUT and FNA as measured by kappa index is 0.669 (p = 0.003), and between CONUT and SGA is 0.488 (p = 0.034). Considering FNA as “gold standard” we obtain a sensitivity of 92.3 and a specificity of 85.0. Conclusions: CONUT seems to be an efficient tool for early detection and continuous control of hospital undernutrition, with the suitable characteristics for these screening functions.

Keywords

Undernutrition, malnourishment, screening, nutritional assessment, albumin, total cholesterol, total lymphocyte count, clinical nutrition.