Abstract
Objectives: To apply a cluster analysis to groups of individuals of similar characteristics in an attempt to identify undernutrition or the risk of undernutrition in this population. Methods: Design: A cross-sectional study. Setting: Seven public nursing homes in the province of Murcia, on the Mediterranean coast of Spain. Participants: 205 subjects aged 65 and older (131 women and 74 men). Measurements: Dietary intake (energy and nutrients), anthropometric (body mass index, skinfold thickness, mid-arm muscle circumference, mid-arm muscle area, corrected arm muscle area, waist to hip ratio) and biochemical and haematological (serum albumin, transferrin, total cholesterol, total lymphocyte count). Variables were analyzed by cluster analysis. Results: The results of the cluster analysis, including intake, anthropometric and analytical data showed that, of the 205 elderly subjects, 66 (32.2%) were overweight/obese, 72 (35.1%) had an adequate nutritional status and 67 (32.7%) were undernourished or at risk of undernutrition. The undernourished or at risk of undernutrition group showed the lowest values for dietary intake and the anthropometric and analytical parameters measured. Conclusions: Our study shows that cluster analysis is a useful statistical method for assessing the nutritional status of institutionalized elderly populations. In contrast, use of the specific reference values frequently described in the literature might fail to detect real cases of undernourishment or those at risk of undernutrition. (Nutr Hosp. 2014;29:602-610) DOI:10.3305/nh.2014.29.3.7194

Keywords