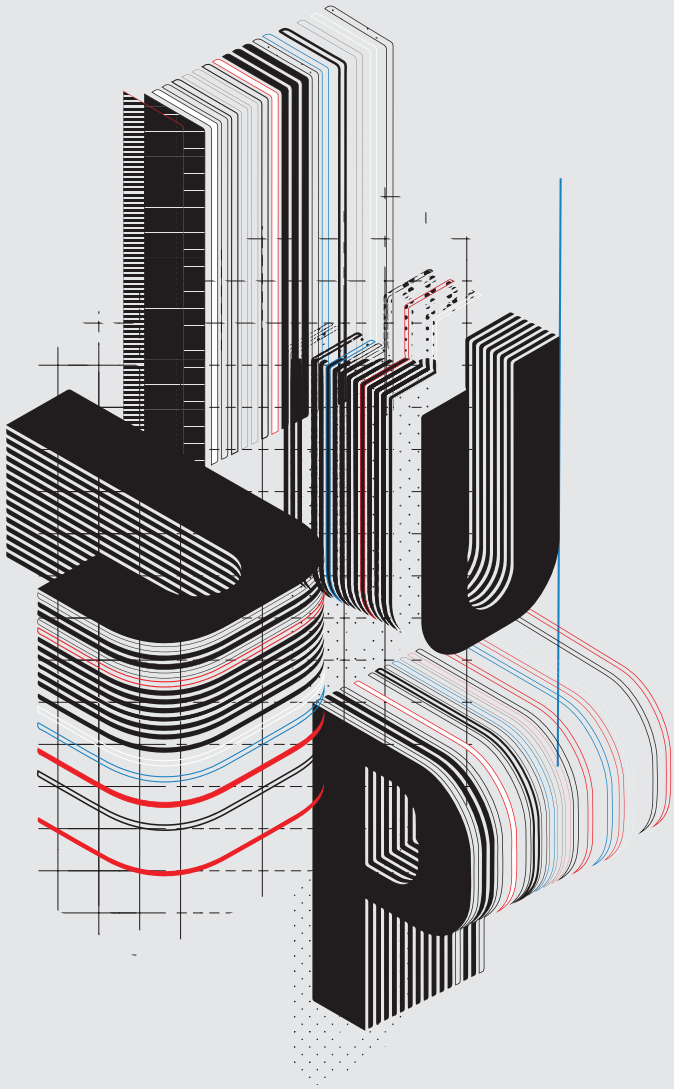
BOOK OF ABSTRACTS

12TH MEETING
OF YOUNG RESEARCHERS
OF **UNIVERSITY OF PORTO**

U.PORTO



- ## 15433 | Anthropometric assessment in hospitalized elderly people: weight and height estimation

Correia P, Faculdade de Ciências da Nutrição e Alimentação, Portugal
Oliveira BMPM, Faculdade de Ciências da Nutrição e Alimentação, Portugal
Mendes C, Faculdade de Ciências da Nutrição e Alimentação, Portugal
Pinhão S, Faculdade de Ciências da Nutrição e Alimentação, Portugal

In the elderly population, it is not always possible to evaluate weight and height and it is necessary to use estimated values. The main aim was to compare anthropometric measurements with estimated values in hospitalized elderly patients and to evaluate inter-rater variability. Body weight(kg) and height(m) were evaluated, BMI was calculated, the knee-heel height (KH) was measured as well as the ulna length (UL), waist circumference (WC), arm perimeter (AP) and geminal perimeter (GP) by three evaluators. A total of 63 patients, 35 men, with an average age of 75 years and with a BMI of 26.8 kg / m2 were included. Statistically significant differences were observed between measured weight and estimated weight according to *Rabito et al*, in both sexes and according to *Chumlea et al*, in only men. In for height, there were only statistically significant differences among women, between the measured height and the estimated heights by the *Chumlea et al* and KH formula. Despite the differences, the correlations are moderate to strong and with statistical significance, except for the estimated height in women according to *Chumlea et al* and UL. Comparing anthropometric measurements KH, UL, WC, AP, GP collected from inter-raters the statistically significant differences are in KH ($p = 0.012$), AP ($p < 0.001$) and WC ($p < 0.001$). There were no statistically significant differences between the evaluator 1 and 3 in the KH measurement and between the evaluator 2 and 3 in the KH, WC and AP measurement. Further studies with other methodologies are necessary to estimate weight and height and to correctly classify nutritional status. It is essential that the evaluators are properly trained so that the measurement error is as small as possible.