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1000 khz, consecutively. Fat free mass (FFM), fat mass (FM) of the participants were assessed.

**Results:** In the young population, there were no significant differences between analyses obtained from the single- and multi-frequency BIA devices, in terms of FFM, FM. However, in the older adults' group, results obtained from the single-frequency BIA device differed significantly from the multi-frequency one. Fat mass analyzed by single-frequency BIA device was significantly lower than measured by multi-frequency device. In contrast, fat-free mass measured by single frequency device was significantly higher compared to analyses obtained from multi-frequency BIA device (Table 1).

**Conclusion:** Body composition analyses might significantly vary in older adults depending on the device used. Therefore, modality of the device used, i.e. single- or multi-frequency BIA, might influence sarcopenia categorization of an older adult. Absence of differences between devices in young adults suggest that age-related changes might be responsible for obtaining different Results depending on the modality. Further studies are needed to investigate if this is due to age-related dermatological changes resulting in altered conductivity.

**Disclosure of Interest:** None declared.

#### P471

### THE IMPACT OF COVID-19 ON THE NUTRITIONAL STATUS OF INSTITUTIONALIZED ELDERLY PEOPLE: A STUDY CONDUCTED IN A RESIDENTIAL STRUCTURE FOR THE ELDERLY PEOPLE, IN PORTUGAL

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**Rationale:** In 2019, the pandemic caused by the new coronavirus (SARS-

Older adults (n=40)	Multifrequency-BIA	Single frequency-BIA	P-value
FFM (kg)	40.8 (29.5-71.9)	45 (32.4-75.7)	<0,001
FM (kg)	30.1 (11-42.8)	25,7 (10.7-40.9)	<0,001

Represents median (range) values  
FM:Fat mass, FFM:Fat free mass

CoV-2), characterized by a severe acute respiratory infection (COVID-19) affected, with greater severity, the elderly population. The elderly people are more prone to comorbidities such as malnutrition. An adequate nutritional status is essential for an effective response of the organism, in the fight against any infection. The aim of this study was to assess the impact of COVID-19 on the nutritional status of a group of institutionalized elderly people in a residential structure in Portugal.

**Methods:** Using a nutritional status assessment tool – Mini Nutritional Assessment (MNA) and anthropometric measures (weight and height), the nutritional risk and status of the group in study was assessed, before and after an outbreak of COVID-19.

**Results:** Fourteen individuals with an average age of 77 ± 12 years were included. Prior to the outbreak of COVID-19, the average body weight was 68.2 ± 13.0 Kg and the Body Mass Index (BMI) was 25.8 ± 4 Kg/m<sup>2</sup>. Zero individuals were malnourished. Nine of these elderly people showed eutrophy and five were at risk of malnutrition - due to difficulties related to mobility and/or neuropsychological causes. After the outbreak of COVID-19, the average weight decreased to 66.3 ± 12.0 Kg and the BMI dropped, on average, to 25,1 ± 4 Kg/m<sup>2</sup>. Three elderly people registered a weight increase, three maintained their weight and the remaining elderly (n=8) had an average weight loss of 4,9 ± 3,0 Kg. Concerning to MNA, two elderly people were considered malnourished, seven were at nutritional risk and

five were in adequate nutritional status. All elderly people reported moderate to severe loss of appetite, during the outbreak period.

**Conclusion:** Although a nutritional intervention was carried out, this study concludes that the outbreak of COVID-19 had a negative impact, both on appetite and on weight maintenance in the acute phase of infection, and consequently in the maintenance of the nutritional status of elderly people.

**Disclosure of Interest:** None declared.

#### P472

### FACTORS ASSOCIATED WITH THE ELDERLY QUALITY OF LIFE: DIETARY PATTERN, BODY COMPOSITION AND COGNITION

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**Rationale:** Physical and psychological factors, social and environmental relations are known as domains of quality of life. These may be influenced by metabolic and physiological changes that appear in old age, like change in diet, sarcopenia, inflammation, dysbiosis, cognitive decline and frailty. Therefore, the challenge is to contribute for elderly people to live their own lives with the highest possible quality.

**Methods:** We included 295 patients aging 69 ± 7.48 years old included in our study from 2018, and evaluated them for quality of life, dietary pattern, frailty, sarcopenia and cognition beside collecting clinical data. The World Health Organization Quality of Life-Bref (WHOQOL-BREF) instrument was used to assess quality of life, classified by the domains: physical, psychological, social relations and environment where each domain is scored from 0 to 100. Consumption diet was assessed the software Virtual Nutri Plus after data collected by the gold standard method, 7-day food record. Sarcopenia was evaluated by the European Consensus (EWGSOP2), frailty by Fried's phenotype classifying the elderly as non-frail, pre-frail or fragile and cognition was assessed by the Mini Mental State Examination

**Results:** There was a significant association between frailty, gait speed and calcium intake in all domains (p <0.001). In addition, handshake strength was associated with three of the four domains, namely: physical, psychological and environmental while cognitive decline was associated to the physical, social relations and environmental domains. Multiple diseases have been associated with the domain of social and psychological relationships. The consumption of copper and calcium from diet was associated with the physical domain and polypharmacy with the psychological.

**Conclusion:** The factors most influencing the quality of life of the elderly were frailty, gait speed and calcium intake. But cognition, polypharmacy, multiple diseases, consumption of copper and phosphorus were also associated with the elderly quality of life. Therefore, we suggest that these factors should be evaluated and considered to outline strategies for promoting and maintaining elderly health.

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#### P473

### CONSIDERING OF NUTRITIONAL MANAGEMENT IN HOSPITALIZED OLDEST-OLD PATIENTS

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**Rationale:** Older people(over 65 years) and oldest-old people(over 80 years) categorize respectively in WHO definition, and ESPEN geriatrics guideline say 30kcal/kg is appropriate calorie for older people including oldest-old people adjusting for individual conditions. In our study, age was related to nutritional improvement at discharge that oldest-old inpatient group's nutritional improvement rate was significantly lower than that of older inpatient group. (P=0.00722, chi-square test) Japan's aging rate is the highest in the world,hence we need to consider whether to do another nutritional management for oldest-old patients or not.

**Methods:** 175 inpatients undergoing rehabilitation aged 65-100 years were divided into two groups of older patient group aged 65-79 years(n=75) and oldest-old patient group aged 80 years or older (n=100), and investigated