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during 2020 Covid-19 pandemics. Patient's clinical characteristics and their needs of compensatory treatments for OD and MN were assessed at baseline and will be followed up at 3 and 6 months. Here we present the baseline data.

**Results:** We included 268 hospitalized patients, 52.2% men, with a mean age of 70.2±17.0 yr, severity of disease was moderate-severe in 34%. At hospital admission prevalence of OD was 52.4% (49.4% had impaired efficacy and 44.9% impaired safety of swallow). Pathophysiology of OD includes ICU and post-extubating factors (16%), neurological factors (32%), respiratory insufficiency (42%) and interstitial pneumonia (74%). Up to 43.7% of patients needed thickeners to be safely hydrated (38.7% with 250mPa·s and 5.2% with 800mPa·s of Xanthan Gum thickeners) and 54.5% had mastication impairments needing texture-modified diets (27.7% easy mastication and 28.8% puree). 74.2% of patients presented a NRS2002>3 and were at risk of MN, 46% had MN and 73.8% of patients received ONS.

**Conclusion:** Prevalence of OD, nutritional risk and MN in patients with COVID-19 at admission in a General Hospital is very high. Pathophysiology is multifactorial and not limited to ICU factors. Early treatment includes fluid thickening, texture modified foods and nutritional support.

**References:** 10 Basic procedures to assess and treat oropharyngeal dysphagia in patients with COVID-19 (SARS-CoV-2) infection. <https://www.furega.com/covid-19/covid-eng.pdf>

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#### LB-066

##### NUTRITIONAL STATUS OF CHILDREN IN SCHOOL AGE: A LOOK OF CONCERN IN AN ERA OF COVID-19 PANDEMIC

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**Rationale:** To analyze the evolution of the nutritional status of Elementary School children, over four years, and to infer the impact of nutritional imbalances to child infection susceptibility.

**Methods:** A convenience sample of two elementary schools were studied during 4 school years, starting in 2016/2017. Weight and height were collected. Body mass index (BMI) z-score was calculated using the WHO AnthroPlus software. Nutritional status was evaluated according to WHO guidelines.

**Results:** 1155 students (6 - 14 years-old, 48.5% female) were included. The mean z-scores of each year were: 0.43 ±1.17 in 2016/2017, 0.70 ±1.31 in 2017/2018, 0.38 ±1.30 in 2018/2019, and 0.34 ±1.86 in 2019/2020. The 2019/2020 school year recorded the highest percentage of underweight (10%), the highest percentage of normal weight was recorded in 2016/2017 (67.2%), 2017/2018 registered the highest percentage of overweight (24.6%) and the highest percentage of obesity was registered in 2019/2020 (18.2%). In these 4 years there has been an increase in the percentage of underweight (2.2% to 10%) and obesity (8.1% to 18.2%) and a decrease in the percentage of normal weight (67.2% to 54.6%) and overweight (22.5% to 17.1%).

**Conclusion:** The increase in the prevalence of underweight and obesity between 2016 and 2020 is worrying, mainly during a pandemic that has obesity and malnutrition as risk factors. Also, the decrease in the prevalence of overweight may be related to conversion of these cases into obesity cases, since normal weight cases also decreased. We are implementing a nutrition education program in these schools to try reverting this serious public health problem, although facing some resistance. Therefore, nutritionists are needed in Portuguese schools, to promote health and nutrition literacy among students, especially during pandemic times.

**References:** de Onis M, Onyango AW, Borghi E, Siyam A, Nishida C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. *Bull World Health Organ.* 2007;85(9):660-7.

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#### LB-067

##### SOCIO-DEMOGRAPHIC AND DIETARY CHARACTERISTICS OF FRENCH ELDERLY COMMUNITY-DWELLERS BASED ON DAIRY PRODUCTS CONSUMPTIONS: DATA FROM THE THREE-CITY COHORT

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**Rationale:** Dairy products (DP) that encompass various sub-types, i.e. milk, fresh DP (yoghurts, fermented milks and petit-suisse) and cheese are part of the French dietary habits. Characteristics of DP consumers can vary across the type of DP consumed. The aim of the present study was to describe the socio-demographics, health and dietary habits of elderly DP consumers.

**Methods:** The sample was constituted of 1584 participants of the Three-City-Bordeaux Study (1), who answered both a food frequency questionnaire and a 24H dietary recall in 2001. Both quantitative nutrient intakes and the frequency of major food groups consumed were recorded. The socio-demographic characteristics included age, sex, education, marital status and monthly income while physical activity, BMI and poly-medication were retained as health-related characteristics.

**Results:** The studied sample was 76.2y (SD 5.0y) on average. 35% were in line with the French DP recommendations (3-4 servings of total DP/d), while 49% were below. Women were significantly more likely to declare the highest frequency of consumption of total DP (≥4 times/d), milk (>1 time/d) and fresh DP (>1.5 times/d). Participants with the highest total DP frequency were less likely to be physically inactive. Participants with the highest frequency of fresh DP intakes reported lower incomes and were more likely isolated, while those with the highest frequency of cheese intake (>1.5 times/d) were more often married and ex-smokers. The highest frequency of fresh DP was significantly associated with the lowest energy and lipids intake, that of cheese with the highest consumption of charcuteries, meat products and alcohol.

**Conclusion:** This analysis confirmed that the socio-demographics, health-related outcomes and dietary characteristics vary across DP sub-types consumed, which encourage individually considering these confounders.

**References:** (1) 3C Study Group Vascular factors and risk of dementia: design of the Three-City study and baseline characteristics of the study population. *Neuroepidemiology.* 2003;22(6):316–325

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#### LB-068

##### BMI CLASSIFICATION AND BIOELECTRICAL IMPEDANCE (BIA) OF BODY COMPOSITION IN MEN AND THE RELATIONSHIP WITH HEALTH

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**Rationale:** Although limitations of BMI in assessing body composition are recognized, it is still widely used for overweight/obesity classification. This could be misleading when assessing men. We evaluated the adequacy of grouping young-to-middle age men in BMI categories by comparing them with body composition measurements obtained by BIA.

**Methods:** The study included n=180 healthy, male forestry workers, 31.4±6.7y, BMI, 28.0±4.4kg/m<sup>2</sup>, involved in everyday, high occupational physical activity. Body composition and parameters of autonomic nervous system to indicate chronic stress and inflammation were measured with portable devices, BIA-ACC and PPG-StressFlow (BioTekna®, Marcon-Venice, Italy), respectively. The protocol was approved by the Institutional review board and each subject signed the informed consent.