sarcopenia by selected variables among Mexican elderly. Methods. Cross-sectional secondary analysis was carried out using data from the Mexican National Health and Nutrition Survey 2012 (ENSANUT 2012). A subsample of 5,130 adults ≥60 years old who completed the self-reported health questionnaire and anthropometric measurements were included in this study. The sample size is representative of 7,617,222 elderly people on nationwide. Sarcopenia was assessed with the 4-meter walk test (<0.8 m/s) and calf circumference (<31 cm). Cognitive impairment by Mini-cog, functionality for basic and instrumental activities of daily life, number of falls in the last year and social conditions were analyzed. Statistical analysis was done by STATA 8 SE. Results. The mean age overall was 70.2 years (standard deviation 7.7) and 54.8% were women. The global prevalence of sarcopenia was 11.8%, this percentage being doubled in the group aged ≥80 years old (27.4%) but the highest frequency of sarcopenia was between subjects ≥90 years old with 54.4% (p≤0.001), the prevalence of sarcopenia was higher among women (15.9% women and 7.0% men, p≤0.01), there is a higher prevalence of sarcopenia in rural areas (13.5%) and social marginality (13.6%), sarcopenia is doubled in presence of cognitive impairment (14.8%, p≤0.01), which increases the impact on disability of the elderly, about this the sarcopenia was 33% of cases, 40% of subjects with sarcopenia had falls in the previous year, no relationship was found between the prevalence of sarcopenia and overweight or obesity even though they accounted for 70% of cases. Conclusion. The prevalence of sarcopenia among Mexican elderly is relatively low through subrogated measurements. Keywords. Elderly, Sarcopenia, Prevalence

P44- ANTHROPOMETRIC INDICATORS OF NUTRITIONAL STATUS AS TOOLS FOR TRIAGE IN ELDERLY WOMEN SARCOPENIA M.H. Fernandes, P.A. Pinheiro, J.A.O. Carneiro, R.S. Coqueiro *(Jequie-BA, Brazil)*

Introduction: The objective of this study was to investigate the association between sarcopenia and different anthropometric indicators of nutritional status, and evaluate which indicator best discriminates sarcopenia in elderly women living in community. Methods. Observational, analytical, cross-sectional which analyzed data from 173 elderly women aged ≥ 60 years living in the urban area of Lafaiete Coutinho, in Bahia, Brazil. The association between sarcopenia (defined by decreasing muscle mass, muscle strength and / or performance) and anthropometric (body mass index, arm muscle area and calf circumference) was tested by means of binary logistic regression. The significance level was 5%. Results. The average age was 74.8 years and the prevalence of sarcopenia of 17.8%. The adjusted regression model indicated that all anthropometric indicators were inversely associated with sarcopenia, and an increase in one unit in BMI, AMA or calf circumference decreased by approximately 46%, 14% and 42%, respectively, the probability of sarcopenia in older women. All indicators showed satisfactory values of sensitivity and specificity to discriminate sarcopenia with the following cutoffs: 22,9 to BMI, 27,1 to AMA, and 31,0 for calf circumference. BMI was appointed as the indicator with improved sensitivity and calf circumference with better specificity. Conclusion: Anthropometric indicators were identified with good discriminatory power for the elderly showed that sarcopenia, mainly through the calf circumference and BMI. Keywords: Anthropometry, body mass index, sarcopenia, elderly health, triage.

P45- TEST "GET UP AND DOWN IN A CHAIR" AS SIMPLE TOOL FOR TRIAGE IN ELDERLY WOMEN SARCOPENIA. M.H. Fernandes, P.A. Pinheiro, J.A.O. Carneiro, R.S. Coqueiro *(Jequie-BA, Brazil)*

Introduction : The objective of this study was to investigate the association between sarcopenia and test performance of "get up and down in a chair," and evaluate this test as a discriminator of sarcopenia in elderly community residents. Methods : Observational, analytical, cross-sectional which analyzed data from 173 elderly women aged ≥ 60 years living in the urban area of Lafaiete Coutinho, in Bahia, Brazil. The association between sarcopenia (defined by decreasing muscle mass, muscle strength and / or performance) and test performance "get up and down in a chair" was tested by binary logistic regression. The significance level was 5%. Results : The average age was 74.8 years and the prevalence of sarcopenia of 17.8%. The model showed that the time taken for the test "get up and down in a chair" was positively associated (OR = 1.08, 95% CI = 1.01 to 1.16, p = 0.024) sarcopenia, indicating that each increment of 1 s in the time of the test increased by 8% probability of sarcopenia in elderly women. The cutoff point that showed the best balance between sensitivity and specificity was 13 seconds. Conclusion : The test "get up and down in a chair" has predictive ability in simple and effective triage of older women with sarcopenia, as well as good discriminatory power and can be used to track these individuals for early intervention and so provide better quality of life. Keywords : Elderly, skeletal muscle, muscle strength, sarcopenia

P46- GAIT SPEED, A SINGLE ITEM TOOL TO ASSESS FRAILTY: RESULTS FROM THE FRAILTY DAY HOSPITAL AT TOULOUSE. G. Abellan van Kan, M. Lilamand, M. Cesari, S. Guyonnet, B. Vellas *(Toulouse, France)*

Background: Gait speed over a short distance (4 meter track) is an easy, quick, not expensive and straight forward screening tool to assess the presence of frailty. The gold-standard to assess physical frailty are the Fried Criteria, but these are difficult to perform in current clinical practice. To use gait speed in substitution of Fried criteria could simplify the assessment of frailty and extend its assessment in clinical practice. Methods. 2012-2013 data of more than a thousand frail patients, from our clinical activity at the Frailty Day hospital, will be used for the present analysis. Receivers operating curves will be performed to assess the best thresholds of gait speed that identify frailty as done by the Fried criteria. Results and Conclusions. Upon freezing of 2013 database beginning of January 2014, analysis will be performed. As shown in the table with clinical data of the 2012 activity, the research question whether gait speed can be used as a single item assessment instead of the full Fried criteria can be answered with pertinent analysis.

Variable		n=466
Age (years), mean standard deviation		82.9 ± 6.0
Women, number %		291 (62.5)
ADL (score), median interquartile range		6 [5.5-6]
IADL (score of 8 over 8), number %		151 (33.0)
Living alone, number %		193 (42.0)
Gait speed (meters per second), mean standard deviation		0.8 ± 0.3
Involuntary weight loss*, number %		175 (37.9)
Fatigue*, number %		256 (56.1)
Handgrip strength*, number %		179 (38.6)
Sedentary*, number %		275 (59.3)
Fried Criteria	Robust (0 criteria)	22 (4.8)
	Pre-frail (1-2 criteria)	143 (31.1)
	Frail (3-5 criteria)	295 (64.1)
SPPB	High performance (score of 10-12)	188 (41.5)
	Intermediate performance (score of 7-9)	157 (34.7)
	Poor performance (score of 0-6)	108 (23.8)

P47- TRANSITION IN SEVERITY OF DEPRESSIVE SYMPTOMS AND MORTALITY: RESULTS FROM THE ITALIAN LONGITUDINAL STUDY ON AGING. L. Galluzzo[1], S. Ghirini[1], C. Gandin[1], F. Panza[2], V. Solfrizzi[3], E. Scafato[1], for the ILSA Working Group *(1. Roma, Italy; 2. San Giovanni Rotondo (Foggia), Italy; 3. Bari, Italy)*

Background. Depressive symptoms (DS) are very common in late life, and are frequently associated with a wide range of behavioural, physical and socio-demographic factors that may interact to raise disability and frailty risk. The association between DS and increased mortality among elderly subjects seems well established but the impact of remission of DS over time has been scarcely investigated. Methods. The Italian Longitudinal Study on Aging (ILSA) is an extensive 3-wave prospective study on a community random sample of 5632 subjects aged 65-84 years, with a 10-year follow-up of vital status. The 30-item Italian version of the Geriatric Depression Scale (0-9=no DS; 10-19=mild DS; 20-30=severe DS) was administered to 3214 subjects at baseline and to 2070 at second survey 3 years later. Changes in severity of DS over time (stable, remitted, worsened) were analysed in the 1941 participants in both evaluations. Cox mortality hazards ratios (MHR) were estimated for DS severity and longitudinal variations, adjusting for a comprehensive set of possible confounding factors. Results. The association between severity and increased mortality was confirmed, with a risk almost doubled for severe DS. Changes in severity of symptoms occurred over the 3-year interval were powerful and significant predictors of 7-year mortality in both genders, even after controlling for potential confounders, leading to a reduction of risk in subjects with transition to a better status (MHR 0.63, 95% CI 0.44-0.90), and to excess mortality for those with worsened symptoms (MHR 1.34, 95% CI 1.05-1.71). Conclusions. Our findings extend the magnitude of the association between severity and persistence of DS on excess mortality, demonstrating that remission of symptoms is associated with a significant reduction in mortality. Since most DS remit partially or completely, either spontaneously or with treatment, these results highlight the need to enhance case-finding and successful treatment strategies for late-life depression. From 1991 through 1995, the ILSA was supported by the Italian National Research Council (CNR). The study was then funded by the Italian Ministry of Health (D.L. 502/92, 1998).

P48- ANALYSIS OF DIFFERENT METHODS USED IN IDENTIFICATION OF SARCOPENIA IN ELDERLY FROM SAO PAULO CITY, BRAZIL. L.A. Gobbo[1], L.S. Ferreira[2], M.A. Roediger[3], D.R. Bueno[3], M.L. Lebrão[3], Y.A.O. Duarte[3], M.F.N. Marucci[3] *(1. Presidente Prudente, Brazil; 2. Rio de Janeiro, Brazil; 3. São Paulo, São Paulo, Brazil)*

Background: Even with the increasing number of studies about sarcopenia, there is still a gap about comparison of different diagnostic criteria for this syndrome. The purpose of this study is to compare different methods for identification of sarcopenia in Brazilian elderly. Methods: Data from 1323 aged men and women (60-99 years old) from the SABE Survey, performed in the city of São Paulo, Brazil, in the year of 2006, were analyzed. Measures of height, body weight, hip circumference, handgrip strength and gait speed, and information on sex, age and race, were collected to enable identification of sarcopenia according to four criteria, suggested by four different studies: the New Mexico Elder Health Survey (CRIT1), the Third National Health and Nutrition Examination Survey (CRIT2), the International Working Group on Sarcopenia (CRIT3) and the European Working Group on Sarcopenia in Older People (CRIT4). Cut-offs values for skeletal muscle mass for CRIT3 and CRIT4 were used as suggested by CRIT2. Prevalence rates for each criterion were identified for the whole sample, and comparison by sex was performed by the Rao & Scott test, for complex samples, while logistic regression was performed to verify association between each method and dependence to perform at least one of six basic activities of daily life (BADL), in software Stata IC 11.0. Results: Prevalence rates for sarcopenia were, respectively, from CRIT1 to CRIT4, 24.4%, 11.9%, 0.6% and 4.1%. When analyzed according to sex, men presented higher rate for CRIT1 only (p<0.05). In the logistic regression analysis, CRIT3 (OR 5.27; CI 95% 1.33-20.91) and CRIT4 (OR

2.01;CI 95% 1.14-3.56) were associated to BADL. Conclusions: All four criterions showed different prevalence rates for sarcopenia, with association with BADL for CRIT3 and CRIT4. Methods for identification of sarcopenia should be chosen carefully, considering specificities of samples and possibilities of measurements. Funding: The present study was supported by FAPESP and CAPES.

P49- FRAILTY IN OLD AGE, A CHALLENGE FOR THE PUBLIC HEALTH SYSTEM, BRASOV, ROMANIA. M. Gurgu[1], A. Zamfirescu[2], E. Chiracescu[1], C. Trif[1], M. Teodorescu[1], A.M. Stroie[3], A. Romila[1], M. Gurgu[4] *(1. Brasov, Romania; 2. Bucharest, Romania; 3. Bretagne, France; 4. Cluj-Napoca, Romania)*

Background: Frailty is a "clinical condition of high vulnerability and low ability to maintain the body homeostasis"; it affects the quality of life of the elderly; it is frequently observed in hospitalized but neglected elderly patients. The aim of this study is to evaluate the prevalence of frailty in a group of hospitalized elderly patients. Methods: The study was performed in February- April 2013, in the department of Internal Medicine from the Emergency Clinical Hospital – Braşov, Romania; bedridden patients were excluded from the study. To identify the frailty we applied the Frailty Scale – the model devised by Rockwood K. We used the MMSE test (Mini Mental State Examination, with a maximum of 30 points) to determine the cognitive impairment: score 30-27 normal, 26-20 mild cognitive deficit, 19-11 moderate cognitive deficit and under 10 for severe cognitive deficit. We evaluated the functional capacity using the ADL (Activities of Daily Living) and IADL (Instrumental Activities of Daily Living) scales; we assessed the level of education. Results: We evaluated 159 patients, mean age 68, most of them females (63.8%). The level of education was in favor of men: 76% having more than 10 years of school compared to 43% in women. Cognitive impairment, accordingly to MMSE scores was much higher in females (60%) compared to males, probably due to the higher educational level. ADL and IADL scores were higher in females (58%); the most affected domains being locomotion, urinary continence, taking medication, public transport, handling finances. Conclusions: From the statistical correlations, it appears that cognitive impairment is a risk factor responsible for the apparition of both frailty and functional dependency. Frailty is a negative predictor for the evolution of elderly patients. A multidisciplinary approach, creation and development of geriatric services and actions to prevent frailty may contribute to improve the elderly patient's quality of life.

P50- FRAILTY AND CHRONIC HEART FAILURE: CLINICAL AND PATHOPHYSIOLOGICAL RELATIONSHIPS. A.N. Ilnitski[1,4], K.I. Prashchayeu[1], A.N. Krivtsunov[1], S.V. Bogat[2], V.I. Poliakov[3], G.I. Gurko[3] *(1. Moscow, Russia; 2. Belgorod, Russia; 3. S.-Petersburg, Russia; 4. Belarus)*

Background: Actually in geriatric's science and practice development of chronic heart failure intensified the need for researching of pathophysiological and clinical aspects of frailty performing. The objective of our research was studying of clinical and neuroimmunoendocrine relationships of frailty syndrome development associated with chronic heart failure. Methods: Participants were 32 patients, 14 men and 18 women, at the age between 75 and 84 (median age 78,4+1,2), suffering frailty syndrome associated with chronic heart failure. Comprehensive geriatric assessment was carried out. ëontrol group included 31 patients, 11 men and 20 women, at the age between 75 and 84 (median age 79,0+2,1) without frailty. Results: Frailty syndrome associated with chronic heart failure characterized by group of syndromes, included cognitive deficiency (r=0,094, p<0,01), anxiodepressive syndrome (r=0,084, p<0,02), falling down syndrome (r=0,091, p<0,01) and sarcopenia syndrome (r=0,095, p<0,001). Chronic heart failure associated with frailty and main geriatrics syndromes related by neuroimmunoendocrine changes, in particular proinflammatory hypercytokinaemia (r=0,094, p<0,01) and level of proinflammatory cytokines decreasing (r=0,081, p<0,04). Conclusion: The main way to prevent frailty syndrome development, as socially significant elderly patienthood status, associated with chronic heart failure is to use special comprehensive geriatric assessment tool, that helps to prevent special geriatrics syndromes (cognitive deficiency, falling down syndrome, sarcopenia, anxiodepressive syndrome) leading to frailty. Funding: The present study is supported by Belarusian Association of Gerontology and Geriatrics, Belarus and Researching Medical Centre, Moscow, Russia

P51- PREVALENCE OF MALNUTRITION-SARCOPENIA SYNDROME AND ITS RELATION TO DAILY ACTIVITIES, PHYSICAL FUNCTION, AND COGNITIVE FUNCTION IN NURSING HOME FRAIL ELDERLY. T. Kamo[1], K. Takayama[2], H. Ishii[1], K. Iwagaya[1], T. Ishida[1], H. Wakabayashi[3], Y. Nishida[1] *(1. Shizuoka, Japan; 2. Kanagawa, Japan; 3. Kanagawa, Japan)*

Background: Malnutrition-Sarcoepenia Syndrome (MSS) is the clinical presentation of both malnutrition and accelerated age-associated loss of lean body mass, strength, and/or physical performance. Malnutrition and sarcopenia are each independently associated with negative health consequences that impact older adults across health care settings. The aim of this study was to assess the prevalence of MSS and its association with functional and daily activities in nursing home frail elderly people. Methods: A total of 184 institutionalized elderly (86.6 ± 7.6 years) were recruited at two nursing homes. The European Working Group on Sarcopenia in Older People (EWGSOP) criteria were adopted. Accordingly, sarcopenia was diagnosed in cases with documented low muscle mass and either low muscle strength (grip strength) or low physical performance (short physical performance battery [SPPB]). We also assessed the participants' nutritional status (MNA-SF), mental state (MMSE), and daily activities (Barthel Index [BI]). Results: MSS was diagnosed in 65 participants (35.3%). Sarcopenia was diagnosed in 149 participants (81.0%). Lower values for ADL (22.2 ± 26.4 vs 52.1 ± 27.7), more severe cognitive impairment (6.3 ± 8.2 vs 16.1 ± 8.5), and lower physical function (0.6 ± 1.9 vs 2.0 ± 3.0) were observed for MSS than for sarcopenia. ADL scores, MMSE, and SPPB were not significantly different between sarcopenia and robust (52.1 ± 27.7 vs. 52.1 ± 25.1 for ADL, 16.1 ± 8.5 vs. 15.6 ± 9.9 for MMSE, and 2.0 ± 3.0 vs. 1.8 ± 2.5 for SPPB, respectively). Conclusions: The prevalence of MSS was high in nursing home frail elderly people. MSS was associated with disability, functional status and cognitive status. However, sarcopenia was not associated with disability, functional status and cognitive status in nursing home frail elderly people. Therefore, adequate nutrition and physical programs for the nursing home frail elderly are necessary. Funding: The present study is supported by Japanese Physical Therapy Association.

P52- ASSOCIATIONS BETWEEN GRIP STRENGTH AND AGING BIOMARKERS ON OLD ADULTS IN TAIWAN. T.W. Kao, Y.W. Chang, W.L. Chen *(Taipei, Taiwan)*

Background: Low grip strength is a contributor to functional decline in the elderly. Researches about grip strength and aging biomarkers in Taiwan are relatively sparse. The aim of this study was to examine the associations between grip strength and aging biomarkers among community-dwelling old adults in Taipei City, Taiwan. Methods: A cross-sectional, observational study was designed. Old adults with ages 65 and above who lived in the community were recruited. Basic demography, medical conditions, health behaviors were reviewed and measured. Serum biochemistry profiles and aging biomarkers including leukocyte telomere length, p16INK4A mRNA expression level, serum myostatin and follistatin levels were also measured. Using multiple linear regression with extended-model approach for covariates adjustment to estimate the relationships between grip strength and aging biomarkers. Results: Two-hundred and five old adults were recruited, and mean age was 76±8. Nighty-eight were men(47.8%). After controlling for age, gender, health behaviors, the _ coefficient, representing the change of grip strength for each increase in leukocyte p16INK4A mRNA expression level, was -0.129 (R2=0.590, p=0.021). After additional adjusting covariates of chronic diseases, levels of serum biochemistry and aging biomarkers, the _ coefficient was -0.134 (R2=0.603, p=0.021). Associations between grip strength and leukocyte telomere length, serum myostatin, follistatin levels were not significant statistically. Conclusions: Leukocyte p16INK4A mRNA expression level was negatively associated with grip strength among community-dwelling old adults in Taipei City, Taiwan. Funding: none

P53- MĀORI AND NON-MĀORI IN ADVANCED AGE, A CONTRAST OF FRAILTY MEASURES. N. Kerse[1], R. Teh[1], Mr Moyes[1], L. Dyall[1], M. Kepa[1], T. Wilkinson[2], M. Connolly[1] *(1. Auckland, New Zealand; 2. Christchurch, New Zealand)*

Background: The utility of frailty concepts in indigenous and very old people is not known. Methods: A cohort study of Māori 80-90 years and non-Māori 85 years at inception in 2010 compared the Fried and Rockwood Frailty Indices in predicting mortality over three years follow up. Rockwood was constructed from 34 deficits on the complete sample, 410 Māori and 512 non-Maori. The Fried was constructed from community dwellers that completed the full interview (206 Māori and 344 non-Māori) using gait speed; PASE activity score; grip strength; energy, and weight loss. Mortality was from National mortality data. Rockwood was examined in the full sample and prediction of mortality of both Rockwood and Fried compared using regression techniques and survival analyses adjusting for deprivation, education and age. Results: Over three years 100 Māori(24%) and 109 non-Māori(21%) died(ns). Rockwood frailty for Māori 0.25(0.13) and non-Māori 0.25(0.11) was similar in the whole sample and the smaller sample. According to Fried, Māori were less frail than non-Māori. Māori: 34% notfrail, 59% prefrail, 7% frail; non-Māori 20% notfrail, 65% prefrail and 15% frail(p <0.001) with no gender variation. The lowest and highest Rockwood quartile had 10% and 47% mortality(p<0.001) for Māori and 6% and 38% mortality (p<0.001) for non-Māori. Fried showed 40% and 20%(p 0.016) mortality for the frail and prefrail group respectively for Māori and 28% and 16%(p 0.004) for non-Māori. Using regression the Rockwood predicated mortality(p<0.002) and produced fit statistic of 483, (scaled Pearson fit statistic 294 for Māori, 182 for non-Māori). Fried prediction was comparable significant prediction of mortality(p 0.003) and a fit statistic of 489; (181 for Māori and 305 for non-Māori). Survival analyses confirmed results. Conclusions: Fried scale was able to show differences in frailty between Māori and non-Māori. Both scales equally and accurately predicted mortality. The Fried better differentiates populations. The study was supported by the Health research Council of New Zealand, Nga Pae o te Maramatanga, Ministry of Health, New Zealand.

P54- LIFESTYLE FACTORS ON SARCOPENIA IN OLDER KOREAN ADULTS. J. Kim, Y. Lee, S. Kye, Y.-S. Chung, K.-M. Kim *(Suwon, Republic of Korea)*

Background: Several studies have examined the effects of specific nutrients and exercise on sarcopenia. However, the association of food group consumption and exercise with sarcopenia has not been extensively studied in community-dwelling older people. The objective of this study was to examine the association of the frequency of food group consumption and exercise with sarcopenia in older Korean adults. Methods: This study used cross-sectional data from the Fourth and Fifth Korea National Health and Nutrition Examination Survey (KNHANES IV-V) in 2008-2011. Subjects were community-dwelling 1,486 men and 1,881 women aged ≥ 65 years. Frequency of food group consumption (meats/fish/eggs/legumes, vegetables, and fruits) was obtained by using the food frequency questionnaire. Aerobic and resistance exercise were based on self-reports. A healthy lifestyle score was calculated as the number of recommended levels of food group