components. Elements from each traditional frailty scale significantly contributed to the model. When age, sex disability and mortality were included, the risk of 2-year mortality and presence of disability was greater for participants with both greater physical and emotional frailty at wave 1. Conclusions: In combining unique components of different frailty tools, we found that a two-dimension structure for the construct of frailty was suitable. This alternative combination frailty model has sufficient construct and predictive validity. To our knowledge, this is the first attempt to unify indicators from different frailty scales into a single frailty model, and will potentially lead to new methods to identify frailty in a research setting. Funding: The present study is supported by an Irish Health Research Board grant (HRA_PHS/2011/26).

P117- THE QUALITYOF LIFE OF FRAIL CHINESE RESIDENTS IN LONG-TERM CARE. E.W.Y. Kwong, C.K.Y. Lai, F. Liu *(Honk Kong)*

Background: Frail nursing homes residents are at risk for a poor quality of life (QOL). Knowing their quality of life experiences and health factors associated with QOL are the necessary first steps before appropriate interventions can be developed. Methods: This study adopted a mixed methods design that included both a survey of the demographic and clinical characteristics of the participants and a descriptive qualitative arm consisted of focus group interviews. The aim of which was to explore the QOL of frail nursing home residents. Rockwood et al's 1999 version of their frailty index were used as the operational definition of the concept of frailty. Residents with a Mini-Mental State Examination Score of 10 or below and who had lived in the homes for less than six months were excluded. Ninety-one participants were recruited and four focus group interviews were conducted with 24 of the participants in the two study site. A content analysis approach was used for analyzing qualitative data. This paper reports the qualitative arm of the study. Results: Five themes were identified: "physical well-being to maximize independence in self-care," "peace of mind to cope with irreversible impairment," "connection to society," "fulfillment of basic needs," and "harmony in interpersonal relationships." The findings provided rich information for service providers in long-term residential care to improve the quality of care they deliver in order to enhance the QoL of frail residents. Conclusion: Our findings lend further support to the importance of promoting physical well-being in frail older people to maximize independence in self-care, which in itself is important to enhancing residents' QOL. Similarly, engagement in life and connections with family and society were essential components of a good QOL regardless of where people live. Keywords: aged care, frailty, quality of life

P118- OBESITY, GRIP STRENGTH AND FUNCTIONAL ABILITY IN OLDER ADULTS. S. Leahy, M.D.L. O' Connell, R.A. Kenny *(Dublin, Ireland)*

Background: Obesity and low muscle strength (dynapenia) are commonly observed in the older population, and both conditions have been linked to decreased physical functioning through various mechanisms. The co-existence of obesity and dynapenia may exacerbate these detrimental effects on physical health. The aim of the current analysis was to examine the relationship between dynapenic-obesity and the presence of functional impairment and disability in a large population-representative sample of older adults. Methods: Using data observed on 4879 population-representative community dwelling adults aged 50+ from the Irish Longitudinal Study on Aging (TILDA), objective height, weight and grip strength were obtained during a comprehensive health assessment. Obesity was defined as Body Mass Index≥30kg.m2 and dynapenia as the lowest tertile of age and sex-specific grip strength. Participants were classified as 'normal' 'obese only' 'dynapenic only' and 'dynapenic obese'. Self-reported physical limitations, Activity of Daily Living (ADL) disability and Instrumental ADL (IADL) disability were recorded as well as objectively measured gait speed (GaitRite®). Covariates studied include age, sex, chronic and cardiovascular disease, education, cognitive ability and health behaviours. Results: Mean age of participants was 61.9y and 54% were female. 10.1% of the sample were classified as 'dynapenic obese', 23% as 'obese only' and 21.5% as 'dynapenic only'. Compared to the 'normal' group (45.4%), dynapenic obesity was significantly associated with the presence of at least one physical limitation (Odds Ratio (OR) =2.03, p<0.001), ADL disability (OR=2.61, p<0.001) and reduced gait speed (11.1cm/sec slower, p<0.001), but not IADL disability (OR=1.50, p=0.088). Conclusions: The findings presented here indicate that older persons who are both obese and have poor grip strength have a greater likelihood of having impaired physical function compared to their non-obese, non-dynapenic counterparts. This group should be investigated as a target for physical activity and dietary interventions to improve & preserve physical function. Funding: The present study is supported by Irish Life plc, the Irish Government and the Atlantic Philanthropies.

P119- PREVALENCE OF FRAILTY AND COMPONENTS OF FRAILTY ONE YEAR FOLLOWING SURGERY FOR HIP FRACTURE. P. Thingstad, K. Taraldsen, I. Saltvedt, T. Egerton, O. Sletvold, J.L. Helbostad *(Trondheim, Norway)*

Background: Poor prognosis after a hip fracture has been attributed to frailty, but there are few reports on the prevalence of frailty within this group. This study aims to describe frailty and components of frailty according to the Fried phenotype one year following surgery for hip fracture. Methods: Longitudinal data from the Trondheim Hip fracture Trial, including 398 home-dwelling hip fracture patients, 73.8% women, mean age 83 years. Frailty components: 1. Reduced energy: single yes/no question from Geriatric Depression Scale, 2. Slow gait speed: below 0.8 m/sec, 3. Reduced muscle strength: a) grip strength below 20/30 kg (women/men), and b) greater than 16.7 sec for five sit-to-stands, 4. Weight loss: > 5% within the first 4 months after the fracture. Results: Eleven percent of the cohort was lost to follow up and 17% died within the 12-month follow-up period. At one year, 80% walked slower than the 0.8 cut-off, 75% were unable or used more than

16.7sec to complete five sit-to-stands and 55% were weaker than the cut-off values for hand grip strength. About one third had a weight-loss higher than 5% and 1/3 reported reduced energy. Dependent on which strength criteria was used 45-60% percent were below the cut off for one or two of the four components, and 30-40% were below the cut-off on three or more. Conclusion: Based on four assessed frailty criteria, at least 40% were likely to meet the Fried frailty phenotype criteria; however as the fifth frailty component of the Fried phenotype, activity, has not yet been included in these results, prevalence is likely to have been underestimated. These findings emphasize that hip fracture patients are at high risk of further functional decline and that there is a need for interventions that consider the frailty of this group.

P120- IMPACT OF THE FRAILTY SYNDROME ON THE TREATMENT OF AGED CANCER PATIENTS. J. Leibovici, O. Itzhaki, M. Huszar, R. Asfour, M. Michowitz, J. Sinai *(Tel-Aviv, Israel)*

Background: Most cancer treatments include aggressive procedures to which elderly individuals may be specially sensitive, particularly those who are frail. Post-operative complications and adverse drug resistance are related to frailty. Therefore cancer therapy in the elderly frail patients constitutes an extremely complex problem. Results: Elderly cancer patients were most often under-treated or not treated at all. These patients were often excluded from clinical trials and thus the under-treatment was not evidence based. Contrary to this cautious attitude towards cancer treatment in the old, certain authors stressed the idea that age per se should not preclude usual cancer treatment. This should include the "fit" old patients who, it was thought, constitute the majority of the elderly population. The percentage of frail people among the elderly is indeed low in many Western countries (around 6%). But this low prevalence is observed mainly in Northern Europe and in the USA while in Southern Europe frailty constitutes 20-30% and is much higher in Russia. Moreover, the prevalence of pre-frail individuals is very high – around 50%- in all countries. Pre-frail individuals are expected to become frail after several years. We suggest that it is this transit from pre-frail to frail which is more rapid in Southern and Eastern than in Western countries. Conclusions: We propose that the aggressive anti-cancer treatments could precipitate the pre-frail to frail transit, endangering thereby patient"s life. Since the pre-frail +frail elderly people constitute 70% of the elderly population, and thus only 30% can be considered fit, only this minority among elderly people could tolerate the usual anti-cancer treatments, while the large majority of cancer patients should undergo milder treatments. Integration of frailty into clinical practice has recently begun. Indeed, treatments of the main types of cancer, adapted for the different stages of frailty, have been suggested.

P121- SARCOPENIA IN PATIENTS WITH RHEUMATOID ARTHRITIS. N.A. Shostak, A.A. Muradyants, A.A. Kondrashov, V.A. Egorova, B.V. Nikiforov, V.S. Shemenkova *(Moscow, Russian)*

Background: Loss of muscle mass and muscle strength are common symptoms in patients with rheumatoid arthritis (RA), which are currently being considered as part of the syndrome of sarcopenia associated with chronic diseases. Sarcopenia in patients with RA has been studied few. Methods: 156 patients with RA were examined: 83 postmenopausal women (the mean age was 61,7 years) and 73 men (59 years). 95 patients with RA conducted a research of the body composition, using «Whole body» by densitometer «STRATOS dR» (DMS, France). Control group is consisted of 35 healthy people matched by sex and age. To assess of sarcopenia index of lean mass (LM) at Baumgartner R. et al. (1998), which is defined as the total lean mass (TLM) of the upper and lower extremities (kg)/height (m2). Sarcopenia was diagnosed with a decrease TLM less 5,45 kg/m2 for women and less than 7,26 kg/m2 for men. Results: Study of the body composition showed a statistically significant reduction TLM in patients with RA compared with the control group, while there was no significant difference between the groups in fat mass. Sarcopenia had 25% females and 55% of men with RA, whereas the control groups 8,7% and 0% respectively. Status LM in patients with RA was statistically significant (p<0.05), associated with the femur BMD and lumbar spine (r = 0,3), TLM (r = 0,5), the compressive force of brushes (r = 0,4), x-ray stage of RA (r = - 0,4), indicators of total protein (r = 0,5). Conclusion: Patients with RA have a significant decrease in lean mass. Sarcopenia in patients with RA was observed in the majority of men (55%) and 25% of women, which was significantly higher than in control groups.

P122- FRAILTY AND COGNITIVE DECLINE: STUDY AMONG THE OLDEST OLD. T.R.P. Brito, D.P. Nunes, L.P. Corona, M.L. Lebrão, Y.A.O. Duarte *(São Paulo, Brazil)*

Background: Cognitive decline can be an early manifestation of seniors transitioning to frailty. The objective of this study is to examine the association between frailty syndrome and its components, with the presence of cognitive decline in the elderly aged over 75 years in São Paulo, Brazil. Methods: It is a cross-sectional study using data from the SABE Study (Health, Wellness and Aging). The SABE Study is a longitudinal study of multiple cohorts, which was started in 2000 under the coordination of the Pan American Health Organization (PAHO). To evaluate the frailty syndrome, we used the five components: weight loss unintentional, report fatigue, loss of strength, reduced walking speed and low physical activity. The elderly who had three or more components have been classified as frail and those who scored in one or two components have been classified as pre-frail . To evaluate the cognitive status of the elderly used the Mini-Mental State Examination (MMSE). Results: Of the 433 elderly, 20.9% had MMSE score below the cutoff. Among the elderly with cognitive impairment, the proportion of frail elderly was much higher than those without deficit (67.8% and 18.8%, respectively) (p <0.001). The MMSE score was

inversely proportional to the number of components of frailty presented by the elderly: the lower the score on the test, greater the number of components present (p <0.001). The reduction in walking speed, low physical activity and the reduction of the force components were more prevalent among older adults with cognitive impairment. Conclusions: Cognitive decline was associated with frailty, and the coexistence of these conditions is worrying, since it increases the risk of adverse outcomes, which requires the establishment of preventive interventions for this population.

P123- FRAILTY AS A CONSEQUENCE OF THE METABOLIC SYNDROME (CASE STUDY OF THE DIABETES MELLITUS TYPE 2). K.I. Prashchayeu[1], A.N. Ilnitski[1,3], N.M. Pozdnyakova[1,2], T.V. Pavlova[2], V.V. Bashuk[2] *(1. Moscow, Russia; 2. Belgorod, Russia; 3. Belarus)*

Background. In the 21st century, the problem of diabetes mellitus (DM) has acquired a global epidemic related to the population of all countries, nationalities and ages, due to its rapid spread among the population of the world. The information appears about the frailty senile more recently. Russia is one of the most troubled countries in the incidence of the frailty, this syndrome occurs in 84% of elderly and senile age. Therefore, the aim of our study was to examine frailty in association with the metabolic syndrome. Methods. Review of current scientific literature for 2000-2013 years. 68 patients from 28 to 77 years old. Light microscopy, scanning electron microscopy, scanning probe microscopy. Results. DM accelerates the aging process and may give rise to the processes leading to the prefrailty first, and then to the frailty. Elderly patients with diabetes are at risk of malnutrition is much higher compared with healthy elderly. In addition, weight loss is associated with an increased risk of muscle atrophy and decreased muscle strength in the presence of concomitant diseases. Malnutrition is widespread in patients with diabetic nephropathy due to a diet with restriction of protein in combination with vitamin D. This has been established in various studies that in elderly patients with diabetes to reduce the risk of walking speed of 1.87 times higher than in patients without diabetes. In addition, exercise tolerance and physical activity significantly lower in people with diabetes than in people without diabetes. This has been shown by electron microscopy of red blood cells that increase in changed forms of red blood cells occurred with the rise of gravity and severity of polymorbidity, especially in the presence of type 2 diabetes. It must be assumed that these changes may indicate the beginning of the frailty as well. Conclusion. Frailty can be seen as a consequence of the metabolic syndrome on the basis of the above written. Timely diagnosis and proper treatment of the metabolic syndrome will prevent the development of the frailty and prolong the period of active aging and improve the quality of life of elderly patients. Funding. The present study is supported by Belarusian Association of Gerontology and Geriatrics, Belarus and Researching Medical Centre, Moscow, Russia

P124- HEART RATE COMPLEXITY DOES NOT CHANGE IN FRAILTY SYNDROME. A.C.M. Takahashi[1], L.A. Bonjorni[1], M.S.S. Buto[1], V.V.B. Carmelo[1], S.M.A. Rocha[1], F.H.M. Ribeiro[2], A. Porta[3], A.M. Catai[1] *(1. São Carlos, Brazil; 2. Araraquara, Brazil; 3. Milan, Italy)*

Background: Frailty is a distinct geriatric syndrome; it has been described as a clinical state of vulnerability to stress, a result of declining resilience and physiologic reserve associated with aging. Additionally, in the frailty process occurs a critical loss of physiological complexity. Thus, measures for assessing the complexity could contribute to better understanding this syndrome. The aim of this study was evaluate de heart rate variability complexity in 3 groups: frail, pre-frail and non-frail. Methods: one hundred older people (60-94 years old) were divided into three groups (frail, pre-frail and nonfrail) according to the phenotype of frailty. It was analyzed the normalized complexity index (conditional entropy) during short heart period series (256 cardiac beats) derived from ECG recordings, during 10 minutes of rest in supine position. The ANCOVA, adjusted for age and betablocker use, was used in the statistical analysis. Results: Frail group (n = 10, media age 76 years), pre-frail (n=59, media age 70 years) and non-frail group (n=31, media age 68 years) were significantly different in age and betablocker use. The normalized complexity index did not show statistical difference between the frail, pre-frail e non-frail groups (0.81, 0.74, 0.74, respectively) (p=0.06). Conclusions: The conditional entropy was not a feasible technique to detect alteration in autonomic control of heart rate in frailty syndrome. Keywords: frailty, aging, homeostasis, complexity, conditional entropy. Funding: The present study is supported by São Paulo Research Foundation (FAPESP) grant 2012/04146-7.

P125- ANTHROPOMETRIC DESCRIPTION AND ITS CORRELATION WITH HANDGRIP STRENGHT IN OLDER PEOPLE BRAZILIANS. G.M.S. Tavares[1,2], V. Manfredini[1], A.A.C. Gullich[1], R.N. Fao[1], J.C.E. Piccoli[1,2], P.P. Schopf[1], J. Mezzono[1], M.G.V. Gottlieb *(1. Uruguaiana, Brazil; 2. Porto Alegre, Brazil)*

Background: the changes in body composition, for example, increase fat mass and reduced lean body mass during the process of aging, is regarded as a normal event. However, when the loss of lean mass is marked and is associated with decreased muscle strength, causing functional dependency and interfering negatively on quality of life of the elderly, called sarcopenia. Thus, the objective of the study was a description associated with anthropometric and handgrip strength in the elderly. Methods: cross-sectional study. We selected 89 elderly people (31 men and 58 women) of the Public Health Care in Uruguaiana– Rio Grande do Sul, Brazil. The variables evaluated were: body mass index (BMI), circumferences and skinfold thickness, muscle mass (MM), muscle mass index (MMI) and handgrip strength (HGS). For the measurement of MM and IMM we used the following formulas: MM= height2 x (0,00744xarm circumference2 +0,00088 x thigh circumference2 +0,00441 x calf circumference) 2+2,4x sex–0,048x age+race+78) and MMI= (kg)/height(m)2. We performed a correction for subtraction of subcutaneous fat using the formula Cm = Climb _ πS. Results : The average age of the sample was 67,90 ± 5,90 years. Averages were highlighted BMI (28,68±5,91 kg), waist (97,24±12,62 cm), hip (101,45±10,88 cm), thigh circumference (47,36±5,36 cm), brachial (30,65±4,30cm) and calf (30,16±3,8). The average of MM was 22,95 ± 4,32 and IMM was 9,32±1,46. The average HGS of the right hand (HGSR) was (22.30 ± 9.44 Kg) and left hand (HGSL) was (22,55 ± 8,65Kg). Correlations were found between MMI and HGSR (r = 0,305, p = 0,004), calf circumference, HGSR (r = 0,266, p = 0,012) and HGSL (r = 0,338, p = 0,001), arm circumference with HGSR (r = 0,448, p <0.001) and HGSL (r = 0,514, p <0,0001). Conclusion : The results show that older people are overweight and anthropometric variables are positively correlated with HGS. Funding: The present study is supported by Public notice of the University extension Program (PROEXT MEC 2012) TAVARES GMS; MANFREDINI V; PICCOLI JCE; SCHOPF PP. (PBDA 2013) FÃO RN;SCHOPF PP.

P126- OCCURRENCE OF SARCOPENIA IN OLDER ADULTS LIVING IN RETIREMENT COMMUNITY. K.I. Prashchayeu[1], A.N. Ilnitski[1,3], S.V. Bogat[2], A.N. Krivtsunov[1], D.V. Volkov[2], S.S. Sultanova[4] *(1. Moscow, Russia; 2. Belgorod, Russia; 3. Belarus; 4. St. Petersburg, Russia)*

Background. Sarcopenia is known as general loosing of skeletal muscle mass during of aging. The result of it are developing of health disorders, accompanied by movement function, leading to increase risk of falls, fractures, limiting each person's ability to perform daily self-care activities, disability, loosing of independence and highly risk of death. That is why sarcopenia problem needs scientific evidence and thorough investigation. Methods. Study included 107 old and senile age persons, living in retirement community at Belgorod city, Russian Federation and 56 patients going outpatient treatment at Belgorod city hospital N1. Respondents were aged between 60 and 89, 97 (59,51%) women and 66 (40,49%) men. There were 92 (56,44%) old and 71 (43,56%) senile age patients. Median age was 71,0 + 2,3. We used EWGSOP (2009) criteries that includes: walking speed definition, dynamometry and muscle mass measurement. Results. In case studies walking speed definition results were divide in following order: 12 (13,04%) old and 19 (26,76%) senile age patients with walking speed below 0.8 meters per sec. Except that walking speed of major patients was normally, dynamometry measures of some elderly persons in relation of all patients in each category, were decreased - 14 (15,22%) _ 23 (32,39%) accordingly. Results of muscle mass measurement, finally stage of research, showed total muscle mass decreasing in 11 (78,57%) of old and 21 (91,30%) of senile age patients. In respondents, living in retirement community, sarcopenia were find out in 28 (26,17%) cases against of 12 (21,43%) outpatient once. Finally 15 (22,1%) of old and 25 (35,21%) of senile age patients suffered from sarcopenia. Conclusion. Therefore, our study shows that sarcopenia is common condition among the older adults, especially specific to retirement communities, increasing accordingly to aging. For better results in researching of methods sarcopenia prophylactics and treatment it is necessary to create step-by-step diagnostic algorithm for it immediately and early on identification not only in retirement communities, but also in general population. Funding. The present study is supported by Belarusian Association of Gerontology and Geriatrics, Belarus and Researching Medical Centre, Moscow, Russia

P127- SARCOPENIC OBESITY IN BRAZILIAN OLDER ADULTS OF DIFFERENT COHORT: SABE SURVEY– HEALTH, WELL-BEING AND AGING. L.S. Ferreira[1], M.F.A. Roediger[2], D. Bueno[2], L.A. Gobbo[2], Y.A.O. Duarte[2], M.L. Lebrão[2], M.F.N. Marucci[2] *(Rio de Janeiro, Brazil; 2. São Paulo, Brazil)*

Background and objective: It is clinically relevant to know the magnitude of sarcopenic obesity (SO) in the "new" generation of older adults of the developing countries that experience fast population aging and the obesity epidemic to support the planning of preventive actions. The aim of this studywas to estimate the prevalence of SO in Brazilian older adults of different cohort, participants of the SABE Survey. Methods: SABE Survey: Health,Well-Being and Aging is a longitudinal, epidemiological and household survey held in the city of São Paulo, Brazil, with older adults (≥60y), selected by probabilistic sample. Individuals that completed 60-65y in the years 2000, 2006 e 2011 (born ,in 1935/1940, 1941/1946 and 1947/1951, respectively) were included in this study. Sarcopenia was identified according to the adapted version of The European Working Group on Sarcopenia in Older People (EWGSOP), which considers three components, according to sex: chair rising capacity (time ≥ 75th percentile), handgrip strength (≤ 25 percentile, according to body mass index) and muscle mass index (≤ 20th percentile), considering the percentile of this study population. The obesity was diagnosed by waist circumference (≥80cm for women and ≥94cm for men). We calculated prevalence rates of SO for each generation of older adults. Results: Considering the sample as representative of the city of São Paulo, Brazil, the prevalence of SO 0.3% inolder adults born in 1935/1940, being all women, increased to 4.2% (all women) and 4.7% (men = 2.7%; women = 2.0%) in older adults born in 1941/1946 and 1947/1951, respectively. Conclusion: The prevalence of SO was different between the Brazilian older adults of different cohort. Although the prevalence of SO was low, it increased with each new generation of older adults, suggesting a growing trend of this syndrome in Brazil. Funding:The present study is supported by FAPESP – Foundation for Research Support of the State of São Paulo.