

Bunkyo-ku, Japan, 2. Institute of Gerontology, The University of Tokyo, Hongo, Bunkyo-ku, Japan, 3. Department of Geriatric Medicine, Graduate School of Medicine, the University of Tokyo, Tokyo, Japan, 4. Institute of Gerontology, The University of Tokyo, Tokyo, Japan

Aim: For achieving healthy aging for all, multi-faceted frailty is serious problem in super-aged society such as Japan. We developed community-based frailty check-up program performed by trained senior volunteers. In this study, we aimed to validate the ability of the results of check-up to predict needing long-term support or care insurance or death in community-dwelling older population. **Methods:** A total of 1,536 older adults (mean age, 73.0±6.1 years; 74% women; non-eligible for long-term support or care) participated in the check-ups held from April, 2015 to March, 2018 in Kashiwa City, Japan. At check-ups cite, 21 items including nutrition, oral and physical functions, and social conditions were assessed; Outcome was needing long-term support or care insurance, or death from the day of check-ups until October, 2018. **Results:** During follow-up {median 678 days (inter-quartile range, 199-1263)}, 116 (7.6%) were newly needing for long-term support (n=50) or care (n=49), or death (n=18). The number of positive responses among 21 items was associated with decreased risks of outcome {age-sex adjusted hazard ratio (95% confidence interval), 0.87 (0.81-0.92)}. Compared those with > 18 positive responses (third tertile), individuals with < 14 positive responses (first tertile) were highly increased risks of outcome {age-sex adjusted hazard ratio (95% confidence interval), 2.44 (1.22-4.49)}. **Conclusions:** Community-based frailty check-ups program could predict the needing long-term support or care insurance or death in community-dwelling older population. The appropriate intervention for individuals with bad results of the check-up might contribute to serving as early prevention of multi-faceted frailty.

EUROPEAN OLDER ADULTS FRAIL: FINDINGS FROM THE SURVEY OF HEALTH, AGEING AND RETIREMENT IN EUROPE (SHARE)

Giulia Manfredi,¹ Luís Midão,² Constança Paúl,³ Clara Cena,⁴ Mafalda Duarte,⁵ and Elísio Costa⁶,
1. Department of Pharmaceutical Science and Technology, Via P. Giuria 9, I-10125 Turin, Italy, 2. ICBAS - Abel Salazar Institute of Biomedical Sciences, University of Porto, Porto, Portugal, Porto, Portugal, 3. Instituto de Ciências Biomédicas Abel Salazar, Universidade do Porto, Porto, Portugal, 4. Department of Pharmaceutical Science and Technology, Via P. Giuria 9, I-10125 Turin, Italy, Turin, Italy, 5. ISAVE – Superior Institute of Health, Amares, Braga, Portugal, ISAVE – Superior Institute of Health, Braga, Portugal, 6. UCIBIO/REQUIMTE, PORTO4AGEING - Competences Centre on Active and Healthy Ageing of the University of Porto, Faculty of Pharmacy of the University of Porto, Porto, Portugal, UCIBIO/REQUIMTE, Portugal

Frailty is a geriatric multidimensional syndrome whose signs and symptoms are predictors of increased vulnerability to minor stress events and risk of adverse outcomes such as falls, fractures, hospitalisation, disability and death. In this work, we aimed to update the data of frailty status in European community dwelling population, based on the latest

data released (wave 6) of SHARE database, and to study the impact of each criterion on frailty assessment. Frailty status was assessed applying a version of the Fried Phenotype operationalised for SHARE. We included all participants who answered all the questions used in a frailty assessment and who disclosed their gender and, further, whose age was 50 or more. Our final sample was 60816 individuals. Of these, the mean age was 67.45 ± 9.71 years; 38497 (56.4%) were female. The overall prevalence of pre-frailty was 42.9% (ranging from 34.0% in Austria to 52.8% in Estonia) and frailty was 7.7% (ranging from 3.0% in Switzerland to 15.6% in Portugal). Pre-frailty and frailty prevalence increased along age and were more frequent among women. Regarding the five criteria considered on frailty assessment, exhaustion seems to be the criterion that contributes most to frailty status, followed by low activity, weakness, loss of appetite and slowness. With this work, we demonstrated that more than 50% of the 50+ European population are pre-frail/frail, which must be considered when designing interventions to reduce/postpone/mitigate the progression of this condition, reducing the burden associated with it.

ADAMO INDOOR MOBILITY, PHYSICAL FRAILTY, AND AUTONOMY IN OLDER ADULTS: A MEDIATION MODEL

Alberto Rainoldi,¹ Lorenzo M. Donini,² Paolo R. Brustio,³ Anna Mulasso,³ Eleonora Poggiogalle,² Gianluca Zia,⁴ Luca C. Feletti,⁵ and Susanna Del Signore⁶,
1. University of Turin, Italy - Neuro Muscular Function Research group, School of Exercise and Sport Sciences, Department of Medical Sciences, Torino, Italy, 2. Sapienza University, Rome, Italy, 3. University of Turin - NeuroMuscularFunction research group School of Exercise and Sport Sciences Department of Medical Sciences, Torino, Italy, 4. Bluecompanion LTD, London, England, United States, 5. Caretek srl, Torino, Italy, 6. Bluecompanion LTD, United Kingdom, France

Physical frailty represents a clinical condition among older adults leading to adverse health outcomes, such as autonomy loss. To evaluate physical frailty in older adults, adopting information and communication technologies (ICT) may be useful. ADAMO (Caretek S.r.l.) is a care-watch accelerometer that allows to measure mobility in a non-intrusive way (Magistro et al., 2018) providing wider information on individual general health (Mulasso et al., in press). The aim of this study was to evaluate the relationship between indoor mobility, physical frailty and autonomy in a sample of Italian older adults. **Methods:** Thirty-two volunteers (age 65–84 years; women 56.2%) participated in the study. All wore ADAMO care-watch continuously over a 7-day period. The number of steps indoor was the main endpoint. Fragmented daily mobility was estimated. Physical frailty and autonomy were measured using the Tilburg Frailty Indicator (physical components) and the Groningen Activity Restriction Scale, respectively. **Results:** Significant inverse correlations were observed between number of steps and autonomy, and number of steps and physical frailty. Conversely, a significant direct correlation was observed between physical frailty and autonomy. Additionally, mediation analysis demonstrated full mediation effect of physical frailty between the number of steps and autonomy. Our results imply that high