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POSTER

P01

ROLE OF COMPREHENSIVE GERIATRIC ASSESSMENT IN ESTIMATING THE RISK OF COGNITIVE DECLINE AND FUNCTIONAL LIMITATION IN A COHORT OF ELDERLY NON-VALVULAR ATRIAL FIBRILLATION PATIENTS ON DOAC THERAPY

Giuseppe Armentaro[1], Daniele Pastori[2], Alberto Castagna[3], Valentino Condoleo[1], Velia Cassano[1], Carlo Alberto Pastura[1], Mattea Francica[1], Caterina Benincasa[1], Nicola D'Alterio[1], Franco Arturi[1], Giovanni Ruotolo[4], Angela Sciacqua[1]

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INTRODUCTION. Atrial fibrillation (AF) represents the most common supraventricular arrhythmia, with a prevalence of 1-3% in the world population. AF plays an important role as a risk factor for the development of cognitive decline and dementia, with the following mechanisms: stroke, small vessel disease, microbleeds and microembolism with silent ischemia, cerebral hypoperfusion due to a reduction in cardiac output, and inflammaging with brain atrophy. In addition, AF represents a risk factors for development of depression and functional limitation. The purpose of the study is to evaluate, in a large cohort of elderly hospitalized patients with nonvalvular AF (NVAF) on direct oral anticoagulant (DOAC) therapy, the prevalence of cognitive decline, depression, and functional limitation, and to assess the different variables that may be detrimental or protective on the risk of cognitive impairment or functional limitation.

MATERIALS AND METHODS. We enrolled 1004 patients in a period between 2014 and 2021 in the two Geriatrics Divisions of "Renato Dulbecco" University Hospital of Catanzaro. At the time of enrolment, all patients underwent to an accurate anamnesis and a complete physical examination with the determination of the main anthropometric and hemodynamic parameters. Weight, height, and body mass index (BMI) were calculated. Routine blood tests and a 12-lead electrocardiogram (ECG) were detected. All patients underwent a Comprehensive geriatric assessment (CGA), cognitive function was assessed by the following tests: Mini-mental state examination (MMSE) and Montreal Cognitive Assessment (MoCA), depressive syndrome by the geriatric depression scale (GDS), and functional status was assessed by the short physical performance battery (SPPB).

RESULTS. A number of 1004 elderly patients with NVAF receiving DOAC therapy were enrolled, 384 men and 620 women, with a mean age of 84±7.1 years. The two groups were comparable for the main study variables, except for age and prevalence of hypertension and chronic kidney disease, which were higher in women, while ischemic heart disease (IHD) was higher in men. In addition, men and women differed in the thromboembolic and bleeding risk, that was significantly higher in women than in men CHA2DS2VASc 5.3±1.3 *vs* 4.2±1.4 pts (p<0.0001); and HAS-BLED 2.5±0.7 *vs* 2.3±0.8 pts (p=0.009), respectively. The study population had a mean MMSE score of 24.3±5.2 pts and a MoCA score of 23.1±5.2 pts. The mean SPPB score was of 7.4±3.7 pts. A 39.9% of the population had a pathological MMSE (<24 pts) while 42.7% a pathological MoCA (<26 pts). Regarding the SPPB, 46.1% of the whole population was characterized by functional dysautonomia, and the mood status evaluated with the GDS was impaired in the 37.2% of the entire population.In a logistic regression model that considers pathological MMSE as the dependent variable, female gender (OR: 2.825, CI: 1.993-4.005; p<0.0001), one-point increase in CHA2DS2VASc score (OR: 1.139, CI:1.014-1.280; p=0.029), one-point increase in GDS (OR: 1.220; CI: 1.164-1.278; p<0. 0001), were associated with the risk of pathological MMSE; while antiarrhythmic drugs (AADs) (OR: 0.300, CI:0.153-0.588, p<0. 0001), statins (OR: 0.485, CI: 0.332-0.710; p<0.0001), and one-point increase in SPPB (OR: 0.864, CI:0.821-0.909; p<0.0001) were associated with reduced risk of pathological MMSE. Another logistic regression model assessing pathological MoCA score as the dependent variable showed that female gender (OR: 3.673, CI:2.437-5.535; p<0.0001), one-point increase in GDS (OR:1.220, CI: 1.162-1.281; p<0.0001) and were associated with risk of pathological MoCA score, while AADs (OR:0.255, CI: 0.128-0.506, p<0.0001), ACEi/ARBs (OR:0.694, CI: 0.481-0.999; p=0.049) and a one-point increase in SPBB (OR:0.852, CI: 0.803-0.903; p<0.0001) were protective. The third model had as endpoint the presence of functional disability assessed as SPPB<8 pts, showed that: 10-year increase in age (OR:4.46, CI:3.257-6.129; p<0.0001), one-point reduction in MMSE (OR:2.034, CI:1.410 -2.935; p<0.0001), the presence of IHD (OR:1.742, CI:1.109-2.736; p=0.016), insulin use (OR:1.731, CI:1.004-2.987; p=0.049), one-point increase in GDS (OR:1.288, CI:1.222-1.357; p<0. 0001), and the one-point increase in the CIRS-CI (OR:1.053, CI:1.022-1. 084; p=0.001). 084; p=0.001) increased the risk of functional limitation, while the use of Ca-channels blockers (OR:0.447, CI:0.233-0.861; p=0.016) and metformin (OR: 0.581, CI:0.353-0.956; p=0.033) were protective.

CONCLUSIONS. Our study revealed that in a cohort of elderly patients hospitalized with AF taking DOAC, cognitive impairment and disability are widely represented. Our study shows that female gender and different comorbidities increase the risk of being affected by cognitive decline, while AAD and other therapies are found to be protective. In addition, cognitive decline, depressive symptoms increase the risk of being affected by functional disability.

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P02

THE PRO-VAX PROJECT IMPROVED THE VACCINATION RATES IN FRAIL OLDER PEOPLE WITHIN THE HOSPITAL SETTING

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INTRODUCTION. In Italy, the National Plan for Vaccine Prevention (PNPV) provides a series of vaccinations recommended by the National Health System (SSN) divided by age group. For adults over 65 years, the PNPV suggests the anti-influenza, anti-pneumococcal, anti-herpes-zoster, and anti-diphtheria-tetanus-pertussis vaccinations. However, Italian available data showed that only 54% of older people got vaccines, mainly due to a lack of information and unequal access to vaccines. AIM. The main purpose of the PRO-VAX project is to implement a vaccination program within the hospital setting for older patient with varying grades of frailty. Secondary objectives are to: i) improve vaccination rates in older subjects; ii) ensure safe and innovative settings for vaccine administration; iii) evaluate the possible adverse reactions of vaccinations according to the severity of the subject's multidimensional frailty.

MATERIALS AND METHODS. Patients over 65 years old were involved in three phases: i) an informative phase, including a vaccination campaign program within the hospital setting with paper brochures and vaccination counseling conducted by the healthcare staff; ii) a clinical phase, including the identification of older people candidate for vaccinations, collection of clinical and multidimensional data through the Multidimensional Prognostic Index (MPI), and the administration of the missing vaccination(s) according to the PNPV; and iii) a follow-up phase after three months from the clinical visit to evaluate any infectious disease, hospitalizations and/or institutionalization, mortality and risk of frailty.

RESULTS. A total of 121 older people were screened for the project: 57 were vaccinated within the hospital, 34 were vaccinated by the Public Health District Center, 12 were excluded (8 refused vaccines, 2 moved to other cities, 2 for acute diseases), 18 subjects have planned vaccinations for the following weeks. Data was collected from the 57 vaccinated older subjects (mean age=82.15±5.25; female=63%). In particular, people with moderate or severe frailty (MPI 2=38%; MPI3=19%) and polypharmacy (number of drugs ≥4: 84%) were vaccinated. Counseling approach by the healthcare staff was conducted for 38% of vaccinated subjects with a cognitive impairment (SPMSQ ≥4) and their caregivers. During the follow-up phase, only three subjects reported short term effects including head ache and mid-arm pain. No long-term effects were observed.

CONCLUSIONS. The PRO-VAX project improved the vaccination rates of 91 older people (57 within the hospital setting and 34 in the Public Health District Center), also in those groups with an increase vulnerability to infections, *i.e.* subjects with moderate or severe multidimensional frailty, cognitive impairment and polypharmacy. The hospital setting can be considered as an innovative and safe setting for vaccine administration.

P03

EVALUATION OF NON-CRITICAL GERIATRIC PATIENTS IN THE EMERGENCY DEPARTMENT (BLUE CODE TRIAGE): A RETROSPECTIVE STUDY

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INTRODUCTION. Overcrowding in Emergency Departments is a global phenomenon, primarily driven by the increasing number of elderly individuals with multiple chronic conditions. This trend amplifies the demand for home healthcare services, hospital resources, and unplanned readmissions. Frequently these patients arrive in the emergency department in stable clinical conditions and identified on the basis of Italian triage system as "blue code". There is currently little data on the clinical conditions of the specific population of "blue code" geriatric patients.

OBJECTIVES. To identify the characteristics of non-critical elderly patients visiting a hospital's Emergency Department that are associated with repeat visits and poor outcomes within the 12 months following the initial visit.

MATERIALS AND METHODS. We utilized the hospital's administrative database to evaluatepatients aged ≥75 years who consecutively visited the Emergency Department and wereassigned a blue priority code upon admission, during a convenience sample of days over a two-week period (between April 7th and April 23rd, 2022). We collected anamnesticinformation regarding multiple chronic conditions and polypharmacy, clinical presentation features, diagnoses, select laboratory test values, hospital outcomes (recovery *vs* discharge), repeat visits, and mortality within the subsequent 12 months. A total of 200 patients were enrolled, with 87% coming from home. There were 57% females and 46% males. The median age was 86 (±6) years, with a functional level of 4/6 (ADL), and 50% of patients taking more than 6 medications daily. The most representative clinical presentations included falls (22,5%), dyspnoea (19,5%), abdominal pain (9%), chest pain (8,5%), fever (7%), loss of consciousness (7,5%), exhaustion and decline (5%), confusion/agitation (4%). Clinical diagnoses included respiratory infections (17.5%), head trauma (11%), congestive heart failure (8.5%), other cardiological disorders (8.5%), gastrointestinal disorders (7.5%), anemia (6%), urinary tract infections (5%), hip fractures (4.5%), other site-specific traumas (4.5%), neurological disorders (4%), behavioural disorders (3%), and strokes (2.5%). Statistical analysis involved contingency tables, with group comparisons made using the chi-square method and logistic regression.

RESULTS. Approximately 60% of patients revisited the Emergency Department within thefollowing 12 months, with a 39% mortality rate within the year. Dementia, dysphagia, bladder catheterization, pressure ulcers, chronic kidney disease, and congestive heart failure were associated with mortality ($p < 0.05$). Independent predictors of mortality were dysphagia and dementia. Regarding repeat visits, no independent predictors were identified.

CONCLUSIONS. This is one of the first studies to focus on the evaluation of elderly subjectsarriving in the emergency room in stable clinical conditions. The results are very interesting because while factors capable of stratifying the one-year prognosis already abundantly known in the literature are confirmed, we were unable to identify factors underlying re-access. These results may suggest that re-access may frequently be linked to non-clinical factors (caregiver stress, home management difficulties) or to unpredictable acute events (falls or infections).

P04

KIDNEY BIOPSY IN THE CLINICAL MANAGEMENT OF RENAL DISEASE IN ELDERLY PATIENTS: RESULTS FROM A SINGLE-CENTER EXPERIENCE IN SOUTHERN ITALY

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INTRODUCTION. Kidney biopsy is considered the gold standard for diagnosis of renal disease but data regarding renal biopsy in elderly patients (≥age 65 years) are limited. AIM. The aim of this study was to examine the cause of renal disease in elderly patients who underwent renal biopsy.

MATHERIALS AND METODS. We conducted a retrospective observational cohort study in elderly patients who underwent kidney biopsy in our medical ward during a period of 17 consecutive months. Inclusion criteria were: age≥65 and no kidney transplant.

RESULTS. During the observational period, 73 patients who underwent kidney biopsy and 21 were included in our study: 9 were female and 12 were male with mean age of 74. Focal segmental glomerulosclerosis was the most frequent diagnosis (18%), followed by diabetic nephropathy (14%), AL amyloidosis (14%), membranous glomerulonephritis (14%), acute tubular nephropathy (10%), chronic tubular nephropathy (10%), minimal change disease (10%), IgA deposit glomerulonephritis (5%) and cryoglobulinaemic glomerulonephritis (5%).

DISCUSSIONS. Kidney biopsy in the elderly patient is a controversial topic. Usually doctors don't submit the patient to a biopsy because the procedure is not free from complications (haematuria, post-procedure pain, arteriovenous fistulas, perirenal hematoma, infections) even if their incidence is quite low. However, in elderly patients, the doctor must carefully evaluate the risk-benefit ratio and particular attention must be paid to the patient's pharmacological therapy (antiplatelet and anticoagulant drugs). Some systematic reviews have documented that major complications of biopsy (haematuria, blood transfusion, nephrectomy) are rare in the elderly population and these often occur more frequently in younger people. The decision to submit an elderly patient to a kidney biopsy is justified both by the scarce complications and by the possibility of highlighting pictures of nephropathy susceptible to targeted therapies (amyloidosis, membranous glomerulonephritis).

CONCLUSIONS. Our study provides a detailed overview about prevalence of histologically diagnosticated kidney disease in a cohort of elderly patients. Our work has shown that renal biopsy in elderly patient allow the renal diseases identification for which exists targeted therapies. Geriatricians need not be afraid to subject the elderly patient to this procedure just because they are elderly as it can improve the patient's life through targeted drugs with little procedural risk.

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P05

INTERACTIONS BETWEEN GENDER AND SEPSIS IN ELDERLY PATIENTS

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BACKGROUND. Sepsis is a leading cause of death across the world, carrying a mortality rate of 20–50%. Studies have shown that the incidence of sepsis differs between sexes and the mortality rate is influenced by both the gender and age of the patient. Elderly patients have a higher mortality compared to younger individuals with sepsis. A recent study found that increasing age is an independent predictor of death among patients with sepsis aged ≥65 years. Women appear less likely than men to develop sepsis. However, the influence of gender on mortality in patients with sepsis is still unclear. The relationship between gender and severe infections is highly controversial due to confounding factors such as age, comorbidities and sites of infection.

AIM OF THE STUDY. The aim of this study was to identify gender differences in elderly patients (over 65 years) with sepsis.

MATERIALS AND METHODS. We conducted a retrospective observational study of 185 elderly patients consecutively admitted to a medical ward and discharged with a diagnosis of sepsis. We enrolled 78 males and 107 females, the average age was 84,3±7 years. Variables studied included age, gender, site of infection, blood cell count, serum procalcitonin and CRP levels, qSOFA evaluation and outcome. Comparisons between groups were performed by T-test Student for continuous variables and χ-square for dichotomous variables.

RESULTS. Our study documented a higher incidence of sepsis in females (58%) than in males (42%). Females experienced sepsis older than males: mean age of men was 80.94 years while mean age of women was 84.06 years (p=0.003). There were no significant differences among gender for rate mortality although females died more frequently than males (39% *vs* 27% respectively, p=0.080). The average length of hospitalization was found to be comparable between two sexes (19.06 days for males and 19.42 days for females, p=0.898). Respiratory tract infection was the most common source of sepsis, and was significantly more common in males compared to females (65% *vs* 45% respectively, p=0,008). Urinary tract infection was the next common source (23.08% males and 25.23% females), followed by intra-abdominal infections (10.3% males and 18.7% females) and skin and soft tissue infections (3.7% males and 2.6% females). However, in these cases no significant gender difference was observed. The QSofa score and C reactive protein dosage were not found to be significantly different between females and males, while procalcitonin resulted higher in women than in men (p=0.049).

DISCUSSIONS. In our study, the prevalence of sepsis was lower in men than in women. Several studies have reported sex-based differences in the epidemiology of sepsis showing a higher risk of sepsis for men. However, many of these studies have not been conducted in elderly patients. The most accredited hypothesis is that women of childbearing age have substantial protection due to the presence of estrogens that reduce chemotaxis and the damage linked to the inflammatory response. Women after menopause lose their advantage and, as our study demonstrates, females are more frequently diagnosed with sepsis and die more frequently than males, although the data are not statistically significant (p >0.05). Our study confirms the thesis that "women

live longer, but are less healthy", in fact women in our series are older than men but when they get sick they have a higher risk of dying than men. Although this cohort of patients is a representative sample from a specific hospital ward, our study has some limitations. First of all, the relatively small sample size of patients and secondly, we did not consider some biases such as comorbidities, sepsis severity and patient frailty.

CONCLUSIONS. The prevalence of sepsis was higher in women than in men in elderly patients. The absence of gender-related significant differences in rate mortality in our study does not preclude possible differences in outcome in specific subgroups.

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P06

EVALUATION OF THE RELATIONSHIP BETWEEN ORAL HEALTH-RELATED QUALITY OF LIFE AND BODY MASS INDEX IN COMMUNITY-DWELLING OLDER ADULTS IN SOUTHERN ITALY: THE SALUS IN APULIA STUDY

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INTRUDUCTION. According to the World Health Organization, oral health is a key indicator of overall health, well-being, and quality of life. Oral and general health are strongly interlinked: deteriorating oral health, especially in older age, together with a reduction in oral hygiene, may lead to a progression of caries and periodontal disease resulting in tooth loss, which can in turn lead to changes in diet and nutritional health. The reduction in the number of teeth is accompanied by different food choices as partially or fully edentulous patients tend to prefer softer over hard foods, which may have lower nutritional values. Macro- and micronutrient deficiencies resulting from these nutritional imbalances are linked to functional impairment in both underweight and overweight older adults, increasing the risk of falls, fractures, infections, frailty, and dementia. In recent years, the assessment of oral health-related quality of life (OHRQoL) has been widely used to evaluate the impact of an individual's oral health on the patient's physical and psychosocial status, including a self-assessment of emotional well-being, expectations, and therapeutic satisfaction, becoming a relevant component of chronic disease management.

SCOPE. We evaluated the association between subjective OHRQoL, measured with the Oral Health Impact Profile-14 (OHIP-14) questionnaire, and unfavorable body mass index (BMI) (*i.e.*, too high or too low) in a large population-based study on older adults from Southern Italy. Moreover, we assessed which of the seven OHIP-14 domains was most strongly associated with an unfavorable BMI.

MATERIALS AND METHODS. The present study used data on a subpopulation of the "Salus in Apulia Study", a public health initiative funded by the Italian Ministry of Health and Apulia Regional Government, and conducted at the Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS) "S. De Bellis", National Institute of Gastroenterology and Research Hospital, Castellana Grotte, Bari, Italy, including 216 older adults (65 years or older), who agreed to participate by answering survey questions on their OHRQoL, using for its evaluation the Italian version of the OHIP-14, which is a shorter version of the OHIP-49, designed to measure self-reported dysfunction, discomfort and disability attributed to oral conditions. Weight and height were measured with the mechanical scale SECA 700 and stadiometer SECA 220 (Seca GmBH and Co., Hamburg, Germany), and the BMI was then derived BMI was classified into two groups, namely "ideal" and "unfavorable", as follows: BMI lower or equal 18.4 kg/m^2 and over 30 kg/m^2 were classified as "unfavorable", while values between 18.5 and 30 kg/m^2 were classified as "ideal". Logistic regression models were used to estimate the association effect between the unitary increases of the OHIP-14 total score as independent variables and ideal BMI (yes/no) as an outcome.

RESULTS. We showed two hierarchical logistic regression models used to estimate the association effect between the unitary increases of the OHIP-14 total score as independent variables and ideal BMI (yes/no) as an outcome. In the unadjusted model, an increase in OHIP-14 total score increased the risk to have an unfavorable BMI [odds ratio (OR): 1.08, 95% confidence interval (CI): 1.01-1.15, p=0.03]. In the model adjusted for age, sex, education, hypertension, carbohydrate consumption, and alcohol consumption, this finding was confirmed with an increase in OHIP-14 total score that increased the risk to have an unfavorable BMI (OR: 1.10, 95% CI: 1.01 -1.22, p=0.04), and higher age linked to a decreased risk to have an unfavorable BMI (OR: 0.89, 95% CI: 0.82 -0.97, p=0.04). To rank the oral health domains/subscales of OHIP-14 that were most predictive for the ideal BMI, we built a random forest regression model on ideal BMI condition as the output. In the present study, the most important predictive domains/sub-scales of OHIP-14 in mean decrease Gini for unfavorable BMI were, in order of decreasing importance, Domain 2 (Physical pain), Domain 1 (Functional limitation), Domain 3 (Psychological discomfort), the Domain 4 (Physical disability), the Domain 6 (Social disability), Domain 5 (Psychological disability), and finally, Domain 7 (Handicap) shows a dot chart of variable importance as measured in mean decrease Gini by the random forest regression model of the domains/sub-scales of the OHIP-14 with ideal BMI status as output.

CONCLUSIONS. In the present large population-based study on older adults from Southern Italy, negative OHRQoL, *i.e.*, discomfort and disability attributed to oral conditions, particularly to the physical pain domain, increased the risk of being underweight or overweight and obesity also after adjustment for possible confounders. Furthermore, higher age was linked to a decreased risk to have an unfavorable BMI.

P07

COMPLEXITY IN GERIATRICS: A CASE REPORT OF DIGESTIVE BLEEDING COMPLICATED BY ACUTE CORONARY SYNDROME IN A PATIENT AFFECTED BY HEMOPHILIA

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CASE REPORT. An 84-year-old man was hospitalized at our ward for melena, onset on the previous night. He was affected by Haemophilia A and sent to our Emergency Department by a peripheral hospital in order to perform in-hospital esophagogastroduodenoscopy (EGDS). He also presented the following concurrent conditions: sigmoid diverticulosis, type II diabetes mellitus, arterial hypertension, coronary ischemic heart disease revascularized with coronary aortic bypass, bicameral pacemaker. The blood

exams performed in the ER showed: macrocytic anemia (Hb 9.4 g/dl, mean corpuscular volume 101,2), urea 54 mg/dl, creatinine 1.4 mg/dl, CPK (918 U/L); PT 123,4% INR 0,91; PTT 47 sec. ECG showed aspecific and diffuse changes in ventricular repolarization. General conditions were in hemodynamic equilibrium, arterial pressure was 110/60 mmHg and heart frequency was 95 bpm. Black feces were found during the rectal exploration. He fasted and started therapy with the infusion of esomeprazole (5 ampoules in 24 h), an intravenous physiological solution of 1000 cc. He continued the usual treatment with oral bisoprolol and amiodarone at the home dosages. After 3 hours he repeated the blood count (Hb 7.7 g/dl, red blood cells 2.360.000/mm3), PT 88%, INR 1.09, PTT 49.1, Factor VIII 7.5%). His blood cardiac enzymes were: CPK 735 U/L, CPK-MB 93 U/L, LDH 362 U/L, CPK-MB mass 68.4 ng/ml, troponin 0.904 ng/ml, myoglobin 530 ng/ml). The cardiologist consultant diagnosed myocardial injury secondary to anemization, and performed two further cardiac enzymatic determinations in the following 24 h. Two pockets of concentrated red blood cells were transfused. Echocardiography showed apex hypokinesia, EF 48%, mild aortic stenosis (mean gradient 16 mmHg), mitral (2-3+/4+), and tricuspidal (2+/4+) insufficiency, PAPs 30 mmHg. The increase in cardiac enzymes, and the history of ischemic heart disease led to deferring esophagogastroduodenoscopy (EGDS). Further enzymatic titrations suggested acute coronary syndrome (ACS) with Troponin T 2.450 ng/ml. ECG and the clinical picture of the patient remained unchanged, with melena persistence, hemoglobin was 9.1 g/dl, with 2.890.000 red blood cells. He underwent another blood transfusion, and performed coronagraphy, half an hour before the test he was administered Octocog alpha 3000 IU. Coronagraphy with a focus on the bypass, and aortography indicated the need for medical therapy only. On the third day, EGDS was performed after Octocog ALFA 2000 UI administration. In the antral site, an excavated and ulcerated lesion sized about 5 cm was found and biopsied. The intravenous administration of a proton pump inhibitor was associated with oral Magnesium Hydroxide/Algeldrate three times a day. The patient started parenteral nutrition. In the following days, hemodynamic conditions were stable, and hemoglobin was 9.5 g/dl. A gradual normalization of myocardial necrosis markers was observed. On the seventh day stools were hypochromic, hemoglobin 9.7 g/dl, and the patient followed intravenous administration of esomeprazole twice a day, and started oral feeding. He performed a total body CT scan with contrast, which showed the presence of locoregional adenopathies and infiltration of the middle colic artery at the origin. The histological report was gastric adenocarcinoma, and the patient was transferred to Oncology Unit for preventive chemotherapy before surgical treatment.

DISCUSSION. One of the milestones of geriatrics is the management of unstable patients, with high complexity for the coexistence of multiple morbidities and often antithetical diagnostic-therapeutic processes. They often require wise decision-making paths, guided by the existing priorities and possible outcomes, by the informed consent of the patient or often, if mental disability coexists, only that of one of family members. In the above-mentioned case report, there was the need of stopping bleeding and performing an endoscopic examination as soon as possible, on the one hand, and of reducing the thrombotic risk to allow myocardial perfusion on the other hand.

P08

DELIRIUM: AN ANCIENT ISSUE BUT ALWAIS CURRENT

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Delirium is an acute, often fluctuating, and usually reversible disturbance of attention, behavior, awareness, and cognition that is a direct result of another disease, or secondary to intoxication, including drugs, withdrawal, or toxicants. Delirium may also be associated with sleep-wake rhythm disturbances, speech disturbances, emotional lability, and visual and auditory hallucinations, although none of these are required for diagnostic purposes In most cases, regardless of the phenotype (hyperkinetic, hypokinetic, mixed), delirium is considered a physiological condition due to aging or a direct consequence of hospitalization itself.Very many critically ill patients have at least one episode of delirium (between 25% and 90% depending on the type of population) and its diagnosis is associated with an increase in mortality, length of hospitalization and long-term cognitive disturbances. In such patients, it marks an exacerbation of the underlying disease, which has extended its effects on the brain, and often must be seen in the context of multiple organ failure. Indeed, in the patient in intensive care, the main disease often causes a systemic inflammatory response, with neurovegetative and neuroendocrine imbalances, all possible pathogenetic mechanisms of delirium . In the critical area, it has been documented that it has important negative effects such as a longer duration of mechanical ventilation, an increase in hospitalization times, healthcare costs, the incidence of dementia and an increase in mortality. To date, despite the growing interest in this condition, the symptoms of delirium are recognized early only by family members in the hyperkinetic form, while they are underestimated by healthcare, medical and nursing personnel in more than half of the cases. The most widely used tool for its recognition, also due to its simplicity, is the Confusion Assessment Method (CAM) based on 4 points: 1) acute onset and fluctuating course; 2) inattention; 3) disorganized thinking; or 4) altered level of consciousness. The diagnosis of delirium is made with points 1, 2, 3 or 1, 2, 4 positive. Early diagnosis of delirium is the key to treatment and prevention of this condition. Treatment of delirium is based on three main aspects: 1) the identification and treatment of the underlying medical cause; 2) non-pharmacological treatment strategies; and 3) pharmacological treatment to be instituted only in cases of failure of the previous strategies. Pharmacological treatment of delirium is symptomatic only and is therefore indicated only in the hyperactive forms. In general, it can be stated that antipsychotics are the drugs of first choice in the treatment of acute delirium, of which haloperidol is the most commonly used and studiedIt is desirable to improve awareness of this problem through specific training plans for organizational medical and nursing staff by scientific societies and multidisciplinary teams, in order to propose dedicated and shared protocols, suitable for the management of this condition which can represent a risk for the patient himself and for those close to him.

P09

CLINICAL REPORT ON AMYLOIDOSIS: GOING BEYOND APPEARANCES

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AG, an 84-year-old woman, was taken to the ED for worsening dyspnoea. Her remote pathological history reported arterial hypertension, obesity, chronic bronchopathy, OSAS in home CPAP treatment, hypomobility syndrome. Family history of cardiovascular disease.At the time of the visit, the patient presented dyspnoea at rest (NYHA class III-IV), significant peripheral edema up to the lower third of the thigh bilaterally. BP 150/90 mmHg, HR 85/min, peripheral SO2 88% in room air, 94% in O2 Venturi mask therapy 4 L/min. On physical exami-

nation, a systolic murmur of 3/6 L was present at the mitral focus and at the centrum cordis. The therapy in place at the time of admission included the use of the ACE inhibitor Perindoril at 5 mg/day, acetylsalicylic acid 100 mg/day.The laboratory exams at the entrance showed: white blood cells 12000/mc-modest neutrophilia; glycemia 115 mg/dl, creatinine 1.2 mg/dl, CPK-MB mass of 6.92 ng/ml n.v. up to 6.22 mng/ml, elevation of biohumoral indices of cardiac damage: Troponin T hs 0.133 ng/ml (v.n. 0.0-0.014 ng/ml), pro-BNP 12224 pg/ml (v-n. 0-300). Myoglobin 519 ng/ml. Serum and urine immunofixation showed no monoclonal component.The ECG showed the presence of sinus rhythm HR 90/min, left axis deviation ≥30°, pulmonary P wave, diffuse disturbances of the repolarization phase; moderately low peripheral voltages.The Echocardiogram showed signs of significant wall thickening (SIVd: 18 mm, PPd: 16 mm), normal LV diameters, enlarged right sections (RV/LV: 1.2) with D-Shape Deformation of the interventricular septum affecting the LV. II degree LV diastolic dysfunction. Thickening of the free wall of the right RV (about 10 mm) and of the mitral leaflets; moderate mitral regurgitation, moderate to severe tricuspid regurgitation with moderate pulmonary hypertension (50 mm Hg); VCI dilated, insensitive to respiratory acts.We started the supportive treatment of the acute phase of heart failure, optimizing the therapy with loop diuretics, titrating the beta-blocker (low doses), with subjective and objective clinical benefit.In consideration of the evidence of structural and cardiac alterations and of the elevation of natriuretic peptides, the diagnostic suspicion of cardiac amyloidosis due to transthyretin deposition was formulated. The patient was then sent for clinical-instrumental investigation by Myocardial Scintigraphy with bone marker using 99m-Tc-HMDP. The examination highlighted the presence of moderate cardiac hyperuptake with respect to the bone which was slightly attenuated (Perugini II). Therefore, after carrying out the genetic test, which made it possible to identify the form of ATTR on a non-hereditary basis (ATTRwt), we started the 'disease modifying' treatment with Tafamidis 20 mg/day. The patient is still being followed up at our Cardio-Geriatrics clinic and is in conditions of sufficient clinical stability.Our case underlines the importance of early recognition of cardiac red fags, on ECG and Echocardiography, and extracardiac, where present, and suggestive of AC, to promptly continue the diagnostic procedure by Myocardial Scintigraphy with bone marker and to start rapidly the specific treatment of AC by ATTR in order to significantly improve the outcomes.

P10

DELIRIUM IN ELDERLY PATIENTS ADMITTED TO A GERIATRIC UNIT: A SINGLE CENTRIC STUDY

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INTRODUCTION. Delirium defined as an acute mental status with altered level of consciousness is a common geriatric syndrome and typical complication in hospitalized elderly patients. It presents with a large range of total prevalence depending on health care setting and diagnostic criteria.SCOPE. In a series of elderly individuals hospitalized in a geriatric division we aimed at assessing the occurrence of Delirium.

METHODS. 845 consecutive patients aged over 65 years hospitalized in the Geriatric Unit of "Renato Dulbecco" General Hospital of Catanzaro (Italy) were screened for a first diagnosis of Delirium. Delirium was evaluated using the validated Assessment Test for Delirium and Cognitive Impairment (4-AT). A score ≥4 indicates delirium and/or cognitive impairment, 1–3 possible cognitive impairment, 0 neither Delirium nor cognitive impairment. Total number of drugs and other clinical and functional parameter were also recorded. RESULTS. Final analysis included 845 patients (84.3±6.7 years, M=34%). Delirium and cognitive deficiency were fully absent in only 146 patients (17,3%) of the study cohort. Conversely, 583 (69%) showed a 4-AT score of 1-3 suggesting mild cognitive impairment and 116 (13,7%) a score ≥4 indicating clear Delirium.

CONCLUSIONS. Mild to moderate delirium is a pervasive condition among geriatric patients. Future studies are necessary to provide further insights on the possible pathophysiology of delirium in elderly individuals hospitalized and to address the optimization of the management of potential risk factors.

P11

NUTRITIONAL STATUS AND HOSPITAL/TERRITORIAL INTERVENTION PLANS

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INTRODUCTION. Factors that reduce independence and increase morbidity and mortality need to be reduced to improve the nutrition, health and other challenges facing older adults. Malnutrition, Sarcopenia and Frailty can all cause disability but are potentially changeable.

SCOPE. The objective of this study was to collect baseline information on mentions of these malnutrition-related conditions and on interventions that address them in the period following hospital discharge.

METHODS. Participants were recruited among patients referred to the "Renato Dulbecco" AOU of Catanzaro in Italy. A total of 845 patients (84.3±6.7 years, M=34%) were included. At baseline, nutritional risk assessment was assessed by Mini Nutrition Assessment (MNA).

RESULTS. According to the MNA test score, 64 (7.6%) were classified as in normal nutritional status, 462 (54.7%) as malnourished, while 319 (37.8%) were at risk of malnutrition.

CONCLUSIONS. Our data strongly highlight the presence of malnutrition in the geriatric population and considering the related risks there is a need for specific multisetting hospital/territorial support plans to be activated at the time of hospital discharge

P12

CORTISOL IN ACTIVE AGEING: CALABRIANDO STUDY

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INTRODUCTION. Salivary cortisol is frequently used as a biomarker of psychological stress. However, psychobiological mechanisms, which trigger the hypothalamus-pituitary-adrenal axis (HPAA) can only indirectly be assessed by salivary cortisol measures.

SCOPE. The objectives of this study were to assess the effect of a specific physical activity programme on a group of persons observed for active ageing, in Catanzaro (Italy). Specifically, we enlisted a group of people, evaluating their salivary cortisol at the beginning and at the end of the physical activity program.

METHODS.The program, carried out with medical examination, included walking in the mountain woods for five consecutive days (from 12 km/ day). The participants were recruited by "ASD Calabriando", amateur sports association, in Catanzaro, Italy. A total of 8 people were included. At the baseline and after five days the salivary cortisol was measured. Pain, assessed by Visual Analogic Scale (VAS) and Rating of Perceived Exertion (RPE) was evaluated before and after the programme. A total of 8 subjects (69,38±5,47 years, M=75%) were enrolled.

RESULTS. From the Data Analysis, it appears that there has been an reduction in salivary cortisolo salivare, (2,45±0,94 *vs* 1,43±0,59; P=0,006). VAS and RPE scores increased immediately after all sessions, but not statistically significantly (VAS 3,91±1,53 *vs* 4,9±1,70; p=0,19 and RPE 3,63±1,06 *vs* 4,12±1,25; p=0,46).

CONCLUSIONS. These preliminary data are very suggestive and demonstrate the need for a careful choice of physical activity program on people who aspire to a successful aging. The implementation of the collected data will bring further details.

P13

204 YEARS IN TWO: CENTENARIANS IN CHIARAVALLE CENTRALE, ITALY

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INTRODUCTION. The keystone of Territorial Assistance is the General Practitioner (GP), whose strategic importance has been highlighted by the recent Covid-19 pandemic. To promote continuity of care, it is first of all necessary to establish real, loyal and effective communication between the various levels of care but also to understand the social and health needs.

SCOPE. this work wants to describe how the role of the GP goes beyond mere health management, reading the social importance of the presence of Ancient Values in modern context. Specifically, the longevity record of two Centenarians spouses is exposed and the importance that this event has for a mountain community.

MATERIALS AND METHODS. The outpatient clinics for frailty with geriatric management, within the paths of the UCCPs, must represent an open counter, not only a health one, with a territorial location in direct contact with the hospital one. The right recognition of the importance of the events is entrusted to the General Practitioner. In this vision over the years it has been possible to recognize the conditions of Fragility, taking charge of the socio-medical complexities.

RESULTS. One of the most important cases appears to be that of a couple of Centenarians, belonging to the territory of Chiaravalle Centrale (Catanzaro), respectively 102 years old for the Husband and 102 years old for the Wife, married since 1943. The couple, despite the multi-pathological complexity that characterizes them, the serious family bereavement with the loss of two young children, represents the longest living couple in Europe.

CONCLUSIONS. Despite the perplexities that are expressed by many about the new design of the Health Service proposed by the PNRR, the process has now started and, beyond the adjustments that may occur along the way, the role of the GP remains key, as in the management of the record-breaking centenarian couple we honored with this work.

P14

DEMENTIA "DAY SERVICE" CLINICS CAN EXPEDITE DIAGNOSTIC WORK-UP AND THERAPY INITIATION IN COGNITIVE IMPAIRMENT: OUR CASE SERIES EXPERIENCE

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INTRODUCTION. Dementia is one of the most frequent psychogeriatric syndromes associated with an increased risk of mortality and hospitalization. Its prevalence in Italy is expected to rise up to 1,5 millions cases by 2025. CDCD (clinics for cognitive disorders) ensure diagnostic and therapeutic pathways in dementia. Unfortunately, the volume of patients with newly diagnosed dementia referred to CDCD exceeds the capacity to address the referrals in a timely manner with delay in therapy initiation. At Morgagni-Pierantoni hospital (Forlì) we designated a rapid access "Dementia Day Service" (DSA) for patients considered good candidates for dementia therapies.

AIMS. 1. to outline the advantages of a designated outpatient clinic (DSA) in a carefully selected subset of patients who are good candidates for acetylcholinesterase inhibitors (AchEI) or memantine; 2. to identify the clinical features of this subset of patients (age,gender,cardiovascular burden, neuroimaging features, MMSE scores).

MATERIALS AND METHODS. We considered the population referred from CDCD to rapid access DSA in the last six months of 2022. Access to DSA is managed by the assessing geriatrician via internal referral in order to provide a rapid diagnostic work-up. Once the work-up is completed, the same geriatrician confirms eligibility for AchEI or memantine.

RESULTS. 92 patients were referred to DSA service from 01/06/2022 to 31/12/2022, 55 females, 37 males (59,8% and 40,2% respectively). Mean DSA population age was 78 years;in females was 77,4 years whereas in males was 79,3 years; 67,3% of patients were aged between 75-85 years. The mean number of days from DSA referral to discharge was 55,7 days (7-167 days). Of these 92 patients, a diagnosis of cognitive impairment was confirmed in 83 patients (90,2%); 9 patients were excluded from further analysis (alternative diagnosis or discontinued DSA). Mean MMSE in our cases was 23/30. Mean MMSE adjusted for age and education was 21,9/30. 24 patients also had a diagnosis of depression (28,9%). For 43 patients (51,8%) investigations included a neuropsychological assessment (NPA). In 34 patients NPA was decisive to guide either therapy or non pharmacological intervention. In 9 patients NPA was requested in spite of mild to moderate cognitive impairment (mean MMSE 21/30). Nevertheless, these requests were supported by documented clinical reasoning. MMSE and adjusted MMSE identified initial cognitive disease (MCI) in 12 patients, mild cognitive disease in 48 patients, moderate cognitive disease in 21 patients and severe cognitive disease in 2 patients. Etiology was established according to clinical history, cardiovascular burden and brain imaging. 11 patients (13,2%) had neuroimaging suggestive of pure atrophic-degenerative changes. 28 patients (33,7%) showed cerebrovascular abnormalities with no atrophic changes.In 31 patients (37,3%) were demonstrated mixed atrophic and cerebrovascular features and/or lacunar strokes. 11 patients (13,2%) had a normal CT/MRI. In 2 patients CT/MRI was not reported. Of these 83 patients, 44,7% were prescribed therapy. 27,7% of DSA cases were started on AchEI. The mean adjusted MMSE score in this subgroup was 23,6/30 and 1/3 of cases had an adjusted MMSE ≥25/30. Treatment with donepezil was prescribed in 9 patients (10,8%), rivastigmine in 14 patients (16,8%). 17% of DSA cases were started on memantine. Mean adjusted MMSE score in this subgroup was 21,2/30. The relatively high MMSE score in the memantine subgroup is due to off labels prescriptions (MMSE>21/30); when prescription was not adherent to AIFA

note 85 choice was clearly documented (history of peptic ulcer, cardiovascular contraindications for AchEI). For the 46 patients considered not eligible for AchEI or memantine we identified "clusters" of features justifying exclusion. Common clusters were: - mild to moderate dementia (MMSE 19-23/20) with only or predominant vascular etiology and, in most cases, lacunar strokes; - mild cognitive impairment (MMSE between 23/30 and 26/30) with CT/MRI vascular changes, without atrophic features. Less common clusters were age ≥90 years or neuropsychological evaluation with normal performance.

CONCLUSIONS. In carefully selected patients with cognitive impairment a diagnostic work-up should be performed promptly for early, yet appropriate, therapy initiation. Our rapid access DSA clinic provides a model to expedite investigations only in patients considered proper candidates for acetylcholinesterase inhibitors or memantine and to identify patients with actual indications for follow up.

P15

EFFECT OF CONTINUOUS POSITIVE AIRWAY PRESSURE ON MACE INCIDENCE AND AF RECURRENCE IN ELDERLY WITH OBSTRUCTIVE SLEEP APNEA AND SEVERAL COMORBIDITIES

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BACKGROUND. Obstructive sleep apnea (OSA) is the most common and clinically significant sleep breathing disorder. OSA is often under-recognised and under-treated in clinical practice, although guidelines recommend screening for OSA in patients with resistant/poorly controlled hypertension, paroxysmal atrial fibrillation (PAF), independently from spleepiness syntoms. Recurrent apnoic and hypopnoic obstructive events causes episodic hypoxemia, nocturnal sympathetic nervous system activation, chronic inflammations and sleep fragmentation. These events increase the risk of CV and arrhythmic diseases. Despite several clinical studies have shown that the use of Continuous positive airway pressure (CPAP) is associated with lower rates of cardiovascular (CV) events and death, particularly among compliant patients, the topic is still under debate. Purpose: The aim of this work is to investigate possible differences in major adverse cardiac events (MACE) incidence and AF recurrence between patients receiving CPAP treatment *versus* no CPAP treatment, in a cohort of elderly OSA patients with several comorbidities and history of PAF.

MATERIALS AND METHODS. This is an observational study where we followed 420 patients aged ≥65 years, suffering from PAF, with a first diagnosis of moderate/severe OSA recorded during a home nocturnal respiratory polygraphy and indication for CPAP-mode ventilotherapy according to the American Academy of Sleep Medicine (AASM) guidelines. Two groups were defined: CPAP-treated group (n.176) and untreated group (n.244) because they refuse treatment. The study population underwent clinical-instrumental and laboratory evaluation for a follow-up of 24 months, and to detect AF appearance, patients underwent, every 6 months, standard 12-lead electrocardiogram. In the CPAP group, efficacy parameters and therapy compliances were closely monitored, achieving an average time of use >4 hours per night. Mann-Whitney test and Student's t-test were performed for unpaired data, chi-square test when appropriate. In addition, a log rank test was performed to compare the risk function estimates of two groups at each time point of the observed events, followed by a univariate Cox regression model on the incidence of MACE and AF recurrence; and variables that significantly correlated were included in a multivariate stepwise Cox regression model to calculate independent predictors associated with the incidence of MACE and AF recurrence.

RESULTS. The two groups were over comparable for sex, CHA2DS2VASC-score and drugs. Enrolled population had: mean age 75±4.6, estimated glomerular filtration rate (eGFR) 61.8±17.2 ml/min/1.73m^2, Hb 13.7±1.7 g/dl, BMI 32.6±6.1 Kg/m^2, AHI 36.6±15.9 e/h, ODI 29(21.3-42.2) e/h, SpO2 92±3.2%, TC90% 11.2% (3.2-32.7) and Epworth Sleepiness Scale 11±4.7pt. CPAP's group had a higher prevalence of ischemic heart disease (IHD) (23.3% *vs* 21.7%; p=0.702), Type 2 diabetes mellitus (T2DM) (62.9% *vs* 52.9%, p=0.049), chronic obstructive pulmonary disease (COPD) (39.8% *vs* 34.4%, p=0.261), chronic kidney disease (CKD) (48.3% *vs* 46.3% p=0.687), nocturnal respiratory insufficiencies (NRI) (40% *vs* 18.9%, p<0.001) and they were older than without treatment (75.5.4±5.1 *vs* 74.6±4.3 years; p<0.045). The incidence of MACE in the CPAP group was 8.2 events/100 patient-years, while in the untreated group was 14.3 events/100 patient-years (p<0.003). A multivariate analysis model showed that CPAP treatment (HR 0.31, p<0.001), SGTL2-i (HR 0.23, p<0.001), Loop Diuretics (HR 0.29, p<0.001), ARNI (HR 0.31 p=0.013), ACEi/ARB (HR 0.34 p<0.001), NOAC (HR 0.35, p<0.001), lowering HbA1c by 1% (HR 0.76, p=0,030) and lowering ODI by 10 e/h (HR 0,83; p=0,016) reduced risk of MACE, while female gender (HR 3.77, p<0.001), IHD (HR 2,89, p<0,001), 1-point increase in CHA2DS2VASc-score (HR 2.43, p<0.001) and 5-year increase in Age (HR 1.77, p<0.001), increased the risk of MACE. Concerning recurrence of AF, we observed 5.4 events /100 patient-years in CPAP's group and 9.8 events/100 patient-years (p <0.014) in untreated group. A multivariate analysis model showed that CPAP treatment (HR 0.33, p<0.001), ARNI (HR 0.29 p=0.002), GLP-1RAs (HR 0.34, p<0.001), LABA/LAMA/ICS (HR 0.37, p=0.015) and NOAC (HR 0.43, p=0.002), reduced risk of recurrence of AF, while history of COPD (HR 3.43, p<0.001), 5-year increase in age (HR 1.55, P=0.006) and 1-point increase in CHA2DS2VASc-score (HR 1.36, p<0.001) increased the risk of recurrent AF.

CONCLUSIONS. This study supports the role of moderate/severe OSA as a risk factor for MACE and recurrent AF. CPAP treatment with optimal compliance, combined with usual medical care for cardio-metabolic comorbidities, is associated with a lower incidence of MACE and recurrent AF in elderly patients with several comorbidities.

P16

UNDIAGNOSED COGNITIVE IMPAIRMENT IN OLDER INPATIENTS: DATA FROM THE REPOSI REGISTRY

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INTRODUCTION. Undiagnosed cognitive impairment has been associated with increased risk of physical frailty, poor health status, depression, and worst functional recovery after hospitalization.To date, epidemiological data on prevalence of undiagnosed cognitive impairment stemming from hospitalized older adults are still scarce. This study aims to evaluate the prevalence of this condition, the use of potentially inappropriate medications among these patients and the related impacts on prognosis.

MATERIALS AND METHODS. We retrospectively studied data from the Registro Politerapie SIMI (REPOSI) on 4888 older adults hospitalized between 2010 and 2021 with no previous diagnosis of dementia or cognitive impairment nor receiving anti-dementia medications at admission. Undiagnosed cognitive impairment was defined based on a score at the Short Blessed Test (SBT) ≥10. Three groups were defined based on SB score: i) cases with normal cognition or questionable impairment (score 0–9), ii) with moderate (score 10–19) and iii) severe cognitive impairment (score ≥20). The appropriateness of drug prescription was assessed in terms potentially severe drug-drug interactions (DDIs), potentially inappropriate medications (PIMs) (defined according to Beers and STOPP criteria), and drugs related anticholinergic burden as assessed by means of the Anticholinergic Cognitive Burden (ACB) scale. Cox's regressions were modelled to estimate risk of hospital readmissions and mortality, both assessed at 3- and 12-month after discharge across the three SBT-based groups.

RESULTS. Thirty-eight percent of patients had previously undiagnosed cognitive impairment. They were more likely to be older, women, with a higher prevalence of depression and functional impairment. Among patients with severe cognitive impairment, 69% chronically took five or more drugs. The prevalence of PIMs was similar between groups, except for psychotropic drugs, which were more frequently used in cognitively impaired patients. The risk of potentially severe DDIs and anticholinergic burden increased as cognition worsened. Severe undiagnosed cognitive impairment was associated with a increased risk of 3-month mortality (HR: 1.86, 95% CI: 1.26-2.73, p=0.002) and 12-month mortality (HR: 2.02, 95% CI: 1.49-2.72, p<0.001), after adjusting for age, sex and comorbidity burden.

CONCLUSIONS. A high proportion of hospitalized older adults in internal medicine and geriatric wards suffer from cognitive impairment. This often unrecognized condition is associated with polypharmacy and prescription inappropriateness in a high proportion of cases, and with a higher mortality risk.

P17

TYPE 2 DIABETES MELLITUS IS ASSOCIATED WITH INCREASED RISKS OF LOW HANDGRIP STRENGTH AND SARCOPENIA IN EUROPEAN OLDER ADULTS

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INTRODUCTION. Sarcopenia is characterized by progressive and generalized loss of skeletal muscle mass and function, and it is associated with increased risks of falls and fractures, disabilities, metabolic disorders, poor quality of life, and mortality. The reported prevalence of sarcopenia varies considerably between 10% and 27%(1).This discrepancy mainly attributed to differences in the criteria used for diagnosis, threshold values, and methodologies employed to assess muscle mass for defining sarcopenia (1), and different races/ethnicities (1,2). Therefore, early identification is crucial for implementing appropriate preventive actions and studying its pathogenesis and influencing factors, such as aging, obesity, and cardiovascular diseases. Type 2 diabetes mellitus (T2DM) is a chronic disease, characterized by hyperglycemia, caused either by insulin function or impaired insulin secretion. The worldwide prevalence of diabetes among 20-79 year olds in 2021 was estimated at 10.5%, rising to 12.2% in 2045. A higher prevalence of T2DM occurs in subjects aged 50–69 (15%) and in those aged 70+ (22%) compared with the individuals aged 15–49 (4.4%). In Western Europe, elevated prevalence rates are evident despite the public health strategies. The rate of increase seems to be continuing. T2DM has been reported as an influencing factor for sarcopenia. It is known that insulin resistance (IR) is associated with obesity and accumulation of visceral fat. Fat accumulation within muscle tissue promotes proinflammatory cascade that leads to impaired insulin signaling, mitochondrial dysfunction, and muscle deterioration. Furthermore, recent evidence suggests that diabetic individuals have a higher risk of sarcopenia than non-diabetic individuals (combined OR: 2.09, 95% CI: 1.6-2.7)(3). However, most of the studies currently available in the literature have been conducted on Asian populations using the criteria of the Asian Working Group for Sarcopenia (4) to estimate the prevalence of sarcopenia in the diabetic population. There have been very few studies that applied the European Working Group on Sarcopenia in Older People 2 criteria (5) to estimate the prevalence of sarcopenia in T2DM, particularly in European populations. The present investigation aims to address this gap.AIM. The purpose was to determine the associations between T2DM and low handgrip strength and sarcopenia in a European cohort of adults.

SUBJECTS AND METHODS. This retrospective cross-sectional study included 356 individuals aged ≥50years and with a body mass index (BMI) ≤30 kg/m^2. Bioelectrical impedance analysis and handgrip dynamometer were performed to measure appendicular skeletal muscle mass and handgrip strength, respectively. Sarcopenia was defined according to the EWGSOP2 criteria as the presence of low handgrip strength (HGS) (<16kg for women and <27 kg for men) plus low appendicular skeletal muscle mass (<15 kg in women and <20 kg in men). T2DM was diagnosed if the fasting blood glucose concentration was ≥126 mg/dL or antidiabetic treatment was administered.

RESULTS. The mean age was 69±7years, 39% were male. The prevalence of T2DM was 22%, and 12% were treated with hypoglycemic drugs. The overall prevalence of sarcopenia was 9% in European participants. Participants with T2DM had a significantly higher prevalence of low HGS (32% *vs* 18%, p-adjusted=0.008), as well as, of sarcopenia (15% *vs* 7%, p-adjusted=0.02) than those without T2DM. In the multinomial logistic regression analysis, T2DM was associated with increased odds of having low HGS (OR=2.60; 95%IC=0.99-6.87) and sarcopenia (OR=6.38, 95% IC=1.63-24.99).

CONCLUSIONS. Diabetic European older adults face significantly higher risk of low HGS and sarcopenia when compared with their nondiabetic counterparts. This study confirm that T2DM is important influencing factor of sarcopenia development. Further studies are needed to support our findings in other age groups.

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P18

RELATIONSHIP BETWEEN WALDENSTRÖM'S MACROGLOBULINAEMIA AND PROTHROMBOTIC ABNORMALITIES

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INTRODUCTION. Waldenström's macroglobulinemia (WM) is a form of B-cell non-Hodgkin's lymphomacharacterized by production of monoclonal IgM and an uncontrolled clonal proliferation of B lymphocytes.These haematological malignancies are an established risk factor for development of thrombotic events.

CASE REPORT. 81-year-old woman was admitted to our hospital for general malaise and asthenia. Uponadmission,the routine blood test done to the patient showed these results: RBC $4.14\times10^6/\mu L$, HB 10.9g/dL, WBC $17.20\times10^3/\mu L$, PLT $132\times10^3/\mu L$, serum creatinine 2.06 mg/dL, urea 286 mg/dL and serumalbumin 3.11 g/dL. Serum protein electrophoresis showed a monoclonal band in the gamma area and IGMlevel in the blood was 1281 mg/dl. Sequently the urinary immunofixation was negative while the serumimmunofixation showed presence of an IGM/k monoclonal component. However, during a routinesampling, high D-Dimer values (46,656 ng/mL) were highlighted with the presence of platelet aggregates.On suspicion of a venous thromboembolism (VTE), the main scores were calculated: the simplified Wellsscore was 2 while the Simplified Geneva score was 2. In accordance with guidelines, the patient underwentCT angiography with negative results.

DISCUSSION. The thrombotic risk in patients with monoclonal gammopathies is due to multiple factors:hyperviscosity syndrome (more frequent in Waldenström's Macroglobulinemia) due to the increasedproduction of clonal immunoglobulins and the release of inflammatory cytokines such as IL-6; increasedlevels of Von Willebrand factor (VWF) and Factor VIII (FVIII); factor patient-related like hypoalbuminemia, renal insufficiency, immobilization and obesity. The increase of D-dimer in patients with monoclonalgammopathies, as it is documented by some scientific papers, is often not related to the clinical evidence ofVTE. Furthermore, Xin Cao et al, have shown that elevated levels of d-dimer are a negative prognostic factorin the survival of patients with Waldeström's macroglobulinemia.

CONCLUSIONS. Prothrombotic biomarkers could represent useful tools for risk stratification in patients withWaldenström's Macroglobulinemia.

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P19

VALIDATION OF NOTTINGHAM HIP FRACTURE SCORE IN ITALIAN PATIENTS WITH HIP FRACTURE

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INTRODUCTION. The Nottingham Hip Fracture Score (NHFS) has been validated in the UK and other EU countries to estimate the risk of 30-day mortality after hip fracture surgery. It might allow for the best therapeutic approach by stratifying patients into risk classes. Aims: to validate the NHFS in a sample of Italian orthogeriatric patients undergoing orthogeriatric co-management.

METHODS. A prospective study was conducted on consecutive orthogeriatric patients admitted for hip fracture surgery in May-July 2021 and January-July 2023. Personal and clinical information was collected through computerized medical records. 30-day vital status was identified through the regional mortality database. Descriptive analyses are reported.

RESULTS. 258 patients, mainly women (n: 193; 75%), aged 83 years, with the following distribution across the score categories: 24.4% in the score 5, 23.6% in the score 6, 22.5% in the score 4, 15.1% in the score 7, 6% in the score 3, 3% in the score 1 and 8, and 2% in the score 2. 30-day mortality was 5%, with a lower rate (3.4%) in those with NHFS ≤4 (n=2) and higher (6.43%) among those with NHFS ≥5. The trend of the observed 30-day mortality increased from the lowest to the highest NHFS, with an observed rate higher than the estimated one both in the lower as well as in the higher categories of the score.

CONCLUSIONS. The NHFS might underestimate the 30-day mortality rate of Italian orthogeriatric patients. Expanding the sample size to reach the power for its validation is necessary.

P20

SYNDROME OF INAPPROPRIATE SECRETION OF ANTIDIURETIC HORMON IN A PATIENT WITH PLURIMETASTATIC NEUROENDOCRINE TUMOR

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INTRODUCTION. Hyponatremia is the most commonly encountered electrolyte abnormality in clinical practice. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) accounts for nearly 60% of all hyponatremia. However, this syndrome has been reported in only a few patients with

plurimetastatic neuroendocrine carcinoma. We present the case of a 65-year-old man who presented to the emergency room for mental confusion, asthenia and nausea. At admission, the serum sodium level was 118 mEq/L with a serum osmolality of 240 mosm/kg, a urine osmolality of 253mosm/kg, and a urine sodium level of 120 mEq/L. After exclusion of other causes of hyponatremia, Tolvaptan 7.5 mg/day was administered, with normalization of serum sodium values (up to 130 mEq/L) which remained stable despite the suspension of the previously undertaken intravenous infusion of NaCl.The purpose of this clinical case is to illustrate the diagnostic and therapeutic workup of SIADH in patients affected by plurimetastatic neuroendocrine neoplasia.

MATERIALS AND METHODS. A 65-year-old man was admitted to hospital for asthenia, mental confusion and nausea in a patient suffering from neuroendocrine carcinoma with secondary bone and lymph node lesions. Non smoker. BMI 25.15. Upon entry to the ward, the patient presented normal neurological examination with the exception of a slightly confused language. Laboratory tests showed microcytic hypochromic anemia, a blood urea nitrogen of 4 mg/dl and a serum creatinine of 0.5 mg/dl. Urinalysis revealed traces of proteinuria with no significant casts. The serum sodium concentration was 118 mEq/L with a serum osmolality of 240 mosm/kg, a urine osmolality of 253 mosm/kg, and a urine sodium concentration of 120 mEq/L. TSH 0.26 µIU/mL, FT3 2.06 ng/dL; FT4 16.0 ng/dL. In view of the secondary hypothyroidism, the patient underwent brain MRI with contrast medium which revealed a hypodense lesion of 4.6 mm in the right portion of the neurohypophysis. For this reason, based on the clinical and laboratory diagnostic criteria described by Bartter and Schwartz such as: hyponatremia in the context of hypo-osmolality, excessively concentrated urine, euvolemia, excessive sodium excretion in the urine and lack of other causes of hyponatremia, SIADH was diagnosed. The patient was initially treated with hypertonic saline (NaCl 0,9% 500 ml+Nacl 40 mEq/L x 3 /day) without benefit. The subsequent serum sodium concentrations were, in fact, 117, 119 and 121 mEq/L and then decreased to 107 mEq/L. Plasma osmolarity (240 mosm/kg) and urinary osmolarity (253mosm/kg) were calculated given the marked sodium (120.0 mEq/L) and lack of response to therapy. At this point, Tolvaptan 7,5 mg/day therapy was started with clinical and biohumoral improvement.

RESULTS. The follow-up serum sodium level was 122 mEq/L and increased to 130 mEq/L after 48 h of Tolvaptan administration and progressive tapering of intravenous NaCl infusion. During the follow-up, the patient increased the sodium values up to the target only to then double the drug dosage (from 7.5 mg/day to 15 mg/day) due to the poor response.

CONCLUSIONS. This case underscores the importance of diagnostic criteria for SIADH, as a paraneoplastic syndrome in patients with NETs, including euvolemia, in the context of high urinary osmolality and low serum osmolality. Because of their pluripotent neuroendocrine cellular origin, these tumors can produce a variety of biologically active polypeptides such as histamine, norepinephrine, vasopressin, dopamine, substance P. In SIADH, elevated levels of vasopressin result in exorbitant free water retention. This leads to electrolyte abnormalities, in particular hyponatremia with all the symptoms associated with it. In our patient, the use of Tolvaptan rapidly restored the electrolyte balance with clinical benefit and the progressive return to a normal life.

P21

TELEHEALTH FOR COMMUNITY-DWELLING OLDER ADULTS UNDERGOING SECONDARY PREVENTION FOR FRAGILITY FRACTURES

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INTRODUCTION. telehealth is a strategy for monitoring patients with chronic diseases, including those at high risk for fragility fractures, and improve adherence to treatments.Aims: to investigate the feasibility and efficacy of remote visits among older adults at high risk of fragility fractures, together with patients' and caregivers' satisfaction.

METHODS. patients undergoing treatments for fragility fracture prevention received invitation to join remote visits, were scheduled and performed the visit through an hospital-based platform. Patients' assessment included assessment of comorbidity, polypharmacy, functional status, adverse events, and patients' and caregivers' satisfaction.

RESULTS. 400 patients were invited to join the platform and 330 (82%) connected successfully. Of them, 246 (74%) completed successfully the remote visit on the first attempt, 72 (22%) on the second one, and 12 (3.6%) required a face-to-face assessment. Telehealth was mainly used by women (n: 287, 90.2%), with mean age 80.10±8.4 years, 84.6% cognitively intact and 87% affected by major fragility fractures. About 43% had previous hip fracture, 33% multiple vertebral fractures, 32% one vertebral fracture, and 43% minor fragility fractures plus clinical risk factors. Overall, 317 (96%) patients adhered to chronic antifracture treatments: 78% denosumab, 13% teriparatide, 5% bisphosphonates, 96.3% and 76% Vitamin D and calcium supplementation, respectively. About 15% experienced falls in the previous year, and 3.3% fragility fractures. Most patients (85%) and caregivers (90%) referred to high satisfaction with the service.

CONCLUSIONS. remote visits might be a feasible and effective tool for monitoring older adults at high risk of fragility fractures, and maintain high adherence to anti-fracture treatments, with evidence for high patients' and caregivers' satisfaction.

P22

ROLE OF SARCOPENIA IN PREDICTING MAJOR ADVERSE CARDIOVASCULAR EVENTS IN ELDERLY PATIENTS WITH CHRONIC HEART FAILURE WITH REDUCED EJECTION FRACTION

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BACKGROUND. Sarcopenia is a condition characterised by loss of muscle mass and function, has a highly variable prevalence in patients with Heart Failure with reduced ejection fraction (HFrEF), between 10 and 68%, especially in male sex, and leads to an increased risk of adverse outcomes. Furthermore, muscle atrophy is a strong predictor of frailty and reduced survival in patients with Heart Failure (HF). HF and sarcopenia share several risk factors such as inflammation, hormonal alterations, malnutrition, oxidative stress and mitochondrial dysfunction. However, to date no one has evaluated the potential prognostic impact of sarcopenia in HFrEF patients on optimal medical therapy. Purpose: The purpose of the present study is to evaluate the potential prognostic impact of sarcopenia on the development of major cardiovascular adverse events (MACE) during follow-up in a cohort of patients with HFrEF.

MATERIALS AND METHODS. A monocentric observational study was conducted at the Geriatrics Department of "Magna Graecia" University of Catanzaro. 218 patients aged >65 years who underwent clinical-instrumental and laboratory evaluation

for a 4-year follow-up were enrolled, divided according to the presence of sarcopenia into 2 groups. Data were expressed as some mean and standard deviation or as a median and interquartile range when appropriate. The Wicoxon test and Student's t-test for unpaired data were performed to compare the study variables between the two groups, and the chi-square test when appropriate. Furthermore, a ROC curve was performed to evaluate the diagnostic accuracy of the presence of Sarcopenia as a binary value in predicting MACE, and subsequently a univariate Cox regression model on the incidence of MACE; variables that correlated significantly with the occurrence of MACE were included in a multivariate Cox regression model to calculate the hazard ratio (HR) for the independent predictors associated with the incidence of MACE.

RESULTS. 218 patients were enrolled and subdivided according to the presence of sarcopenia, 157 patients were affected by sarcopenia, while 61 were not affected by this condition. The two groups differed in the prevalence of males, with Atrial fibrillation, Chronic Kidney Disease (CKD), and Obstructive Sleep Apnea Syndrome having a higher prevalence in patients with sarcopenia. Furthermore, patients with sarcopenia had worse values for: blood glucose, assessment of the homeostatic model (HOMA), total protein and renal function. Regarding echocardiographic parameters, non-sarcopenic patients had better LV end-diastolic and end-systolic volumes and E/A ratio. In patients with sarcopenia, the observed MACE were 59 (6.8 events/100 patient-years), while in the other group they were 7 (0.8 events/100 patient-years) ($p<0.0001$). Sarcopenia has been shown to have good discriminating power in predicting the development of MACE (AUC 0.625; standard error 0.039; 95% CI 0.548-0.701; $p=0.003$). A multivariate analysis model showed that beta-blocker therapy (HR 0.154; $p=0.013$), statin therapy (HR 0.447; $p=0.005$), and HOMA one-point reduction (HR 0.924; $p=0.001$). Were protective factors for the onset of MACE, while sarcopenia (HR 3.348; $p=0.004$), chronic peripheral arterial disease (PAOCP) (HR 2.651; $p=0.046$), CKD (HR 2.586; $p<0.0001$) and 1 percentage point increase in global longitudinal log (GLS) (HR 1.267; $p=0.013$) increased the risk of MACE in patients with HFrEF.

CONCLUSIONS. The results of this study demonstrated that in elderly patients with HFrEF in optimal medical therapy there is an association between the presence of sarcopenia and a higher incidence of MACE during follow-up.

P23

ENHANCING BODY COMPOSITION IN OLDER AND FRAIL PERSONS WITH TYPE 2 DIABETES PREVIOUSLY TREATED WITH INSULIN: THE IMPACT OF IDEGLIRA

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INTRODUCTION. The efficacy of IDegLira, a fixed combination of a GLP-1 receptor agonist and insulin, has been demonstrated in enhancing glucoregulation among patients who were previously treated with oral therapy or basal insulin. Studies have shown that IDegLira is effective in improving glycemic control in these patient populations, providing a comprehensive treatment option that combines the benefits of both GLP-1 receptor agonists and basal insulin in a single medication. The aging process is characterized by an increase in body total fat mass and a concomitant decrease in lean mass and no evidence is available on the impact of IDegLira in older and frail population.

OBJECTIVES. This study aimed to evaluate the variation in body composition after six months in patients transitioning from insulin regimen to IDegLira. We aimed to assess the effectiveness of IDegLira as an alternative treatment option and its impact on body composition and metabolic control in older previously receiving insulin therapy with multiple daily doses.METHODS. The study included a cohort of subjects affected by type 2 diabetes who had been previously treated with two or three daily doses of insulin. All patients were switched to IdegLira. All subjects underwent a bioimpedance analysis at baseline and at follow-up after 6 months.

RESULTS. The study included 49 subjects (22F/27M) with a mean age of 79.7±5.3-year-old and diabetes duration of 23±10 years. Switching these patients to IDegLira we found after 6 months, a significant increase in FFM (Fat Free Mass; 48.14±7.67 *vs* 53.85±11.85; $p=0.08$), BCM (Body Cellular Mass; 16.11±7.52 *vs* 26.99±11.39, $p<0.0001$) and PA (Phase Angle; 3.20±1.35 *vs* 5.87±3.09) as well as a significant reduction in ECW (Extra-Cellular Water; 26.20±5.82 *vs* 19.20±514, $p<0.0001$) and FM (Fat Mass; 26.19±11.40 *vs* 20.33±11.33). Additionally, the serum levels of fasting glycaemia reduced significantly after 6 months (142.±34.11 *vs* 116.9±17.14; $p=0.004$).

CONCLUSIONS. The findings of this study indicate that transitioning older and frail persons from a complex insulin regimen to a fixed combination of basal insulin and GLP-1 receptor agonist, leads to notable improvements in body composition. These results underscore the potential benefits of utilizing the fixed combination therapy of basal insulin and GLP-1 receptor agonist in optimizing metabolic control while minimizing insulin requirements.

P24

PRESENCE OF SUBCLINICAL GIANT CELL ARTERITIS IN PATIENTS WITH A DURATION OF MORNING STIFFNESS <45 MINUTES AT THE TIME OF DIAGNOSIS OF POLYMYALGIA RHEUMATICA

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OBJECTIVES. In some patients with polymyalgia rheumatica (PMR), giant cell arteritis (GCA) is subclinical as underlying inflammation of large vessels (LV) is present without evidence of related clinical manifestations. The presence of subclinical GCA has been documented to be associated with a greater risk of PMR relapse, slower minor response to glucocorticoids (GCs) and prolonged treatment time, more frequent atypical manifestations, and higher rates of ischemic complications during follow-up. Accordingly, recognition of subclinical GCA is very important in everyday clinical practice. Different factors have been proposed as predictive of subclinical GCA in PMR patients, and the reported results are conflicting. To date, the literature reports scant data about the association between subclinical GCA and long-lasting morning stiffness (MS). Given this background, the aim of this study was to assess the association between subclinical GCA and MS <45 min. in patients with newly diagnosed PMR.

MATERIALS AND METHODS. We performed an observational, retrospective, single-centre cohort study of patients consecutively referred to our public out-of-hospital rheumatologic clinic between January 2015 and December 2020, who could be classified as PMR according to the 2012 EULAR/ACR criteria. Subclinical GCA was investigated through US examination of a core set of arteries (temporal, axillary, common carotid, and subclavian arteries), in accordance with the EULAR recommendations for the use of imaging in LV vasculitis. Patients who did not have GCA symptoms but showed halo sign in at least one of these arteries were described as having subclinical GCA. Doubtful

cases were excluded after discussion. Similarly, patients with incomplete data were excluded. The normality of continuous variables was assessed using the Kolgomorov-Smirnov test. We reported all the descriptive data of normally distributed variables as the mean±standard deviation (SD) and, in case on non-normal distribution, as median and interquartile range; binary data as percentage. The differences between groups were compared using an unpaired Student's t-test when clinical and biological data were expressed as continuous variables, and the χ 2 test for categorical variables. The presence of underlying subclinical GCA, the outcome of our interest, was assessed using a logistic regression analysis, adjusted for potential covariates. The factors included were significantly between MS+ and MS- or associated with the outcome of interest in the univariate analyses, taking a p-value <0.10. The collinearity among covariates was assessed using the variance inflaction factor (VIF) using a threshold of 2 as reason of exclusion, but no factor was excluded for this reason. The results were then reported as odds ratios (ORs) with their 95% confidence intervals (CIs). All the datasets were analyzed using a standard statistical package (SPSS for Windows version 21.0, Chicago, IL, USA) and a p-value <0.05 was considered as statistically significant.

RESULTS. We included a total of 143 patients (35 men and 108 women). Their median age was of 71.5 years. Thirty-five had MS duration <45 min at the time of PMR diagnosis. Subclinical GCA was found in 23 PMR patients (16.1%). Briefly, subclinical GCA was found in 23 PMR patients: 18 had a cranial and 5 an extracranial GCA. Participants with or without MS <45 min. did not differ in terms of mean age (p=0.67) or female sex (p=0.44). Patients with MS<45 min. had significantly higher serum inflammatory parameters levels and they did not differ in terms of the other characteristics examined. In univariate analyses, we demonstrated that the MS <45 min. was associated with a lower prevalence of CGA (OR=0.11; 95%CI: 0.04-0.29, p<0.0001). This association was retained in a multivariable analysis that accounted for six different potential covariates (age, sex, serum levels of C reactive protein and fibrinogen, body mass index, visual analogic scale) (OR=0.06, 95%CI: 0.01-0.26 - p<0.0001). The very low number of PMR patients with subclinical extracranial GCA (only five) did not allow to stratify the enrolled patients according to the type of cranial or extracranial involvement.

CONCLUSIONS. Our study highlighted that a MS <45 min. at the time of PMR diagnosis was associated with a significantly lower risk of subclinical GCA, when patients were screened by US, of approximately 90%. To the best of our knowledge, this is the first study that assessed data from PMR patients referred to a public, out-of-hospital rheumatologic clinic.

P25

CHEST X-RAY, *VERSUS* INTRACAVITY ECG

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OBJECTIVES. To date, numerous literature data indicate that in evaluating the correct position of the tip of the central venous access, the intracavitary ECG technique is able to overcome the limitations of methods considered standard (chest radiography, fluoroscopy). We have taken into consideration the studies that deal with the right position of the device we have implanted, the out as for the patient and the management by the nursing staff, putting the patient's safety and comfort at the centre.

MATERIALS AND METHODS. This intervention of mine is to provide useful and detailed information to healthcare professionals to develop a free Rx procedure. Based on clinical evidence and enriched by recent technological advances. This allows the elimination of exposure to ionizing radiation during and after the central venous access implantation procedure, guaranteeing quality and safety standards dictated by international guidelines. The cost effectiveness of the method has been highlighted. In fact, the inappropriate positioning of the tip of the vad is associated with a significant increase in malfunction of the device, which can compromise the functionality of the catheter, reducing its effectiveness, and furthermore the patient is exposed to complications. The optimal location for central venous catheters is the cavo-atrial junction Radiography is a less accurate method because it does not allow direct visualization of the CAJ but provides an estimate based on radiological landmarks such as the carina, the tracheobronchial angle or the bodies of the thoracic vertebrae. Furthermore, the movement of the patient from the supine to the orthostatic position as normally required by the radiography is associated with a dislocation of the catheter tip for a distance that can even reach 2 centimeters. Anatomical landmarks used to determine the position of the catheter tip may not correspond to the real ones due to anatomical-physiological or pathological variations (AVA 2008) and unclear images may further lead to errors of interpretation, especially with fluoroscopy. The post-procedural radiological control requires the double projection, anteroposterior and laterolateral, to increase the accuracy of the investigation, consequently increasing also the radiation exposure and the relative costs for the procedure. The execution of radiological investigations requires dedicated personnel both for the execution and for the reporting of the examination. So the radiological method, while allowing a reliable evaluation of the positioning of the tip after implantation, is associated with a greater expenditure of resources: the involvement of the technician who carries out the examination, of the radiologist who reports it, the use of the radiogenic, the eventual transport of the patient to the radiodiagnostic service. To this disadvantage must be added the patient's exposure to ionizing radiation, which makes the procedure unsuitable for some subjects (children and pregnant women, for example). A further critical aspect of chest radiography is that it is easily influenced by the quality and correct technical workmanship of the examination. Slight variations in the inclination of the device, obese patients, significant alterations of the trunk such as kyphosis or scoliosis, vision may not be optimal, and can make it difficult to correctly interpret the radiological images, the reporting may also present characteristics of dependence on the operator.

RESULTS. For the above reasons, an alternative method for confirming proper VAD tip placement, such as intracavitary ECG, should be considered. This method interprets the location of the catheter tip by evaluating the modification of the P wave on an intracavitary tracing, using the tip of the catheter itself as a "navigating" electrode. Making the catheter a moving electrode, as it advances within the SVC, it generates a P wave that varies in magnitude and reaches its maximum height when it is at the level of the CAJ. This is because the SA node, where the cardiac electrical impulse is generated, which corresponds to the atrial depolarization, is located, anatomically, close to the CAJ.If the catheter passes this point, the P wave will start to become negative, a sign of "moving away" from the CAJ and passing into the right atrium. The interpretation of this P wave has been evaluated by several clinical studies over the years, which have demonstrated the method's accuracy, efficacy and clinical safety. The method was introduced for the first time in 1949, and used successfully in Europe, especially in Germany, starting from the 90s, for the positioning of central venous catheters. In the following years, many studies have demonstrated the accuracy of the Intracavitary ECG method, comparing it with the radiological confirmation standard (Chest X-ray), and the economic impact, highlighting the cost-effectiveness in the application of this method for verifying the correct PICC placement. The ECG method, in fact, with the exception of those patients in whom it is not possible to interpret the tracing due to pathological lack of P wave (*e.g.* AF, Flutter, pres-

ence of active PM), in addition to being easily applicable and accurate, can be used during implantation procedure and fully manageable by the operator.How the Intracavitary ECG works Accuracy of the method Cost-effectiveness of the methodWith the ECG and the new technologies available to operators, we have the possibility of an immediate confirmation of the correct positioning of the catheter or its malposition, with consequent saving of time and resources, making everything more cost-effective. The method can be applied to any central venous access, PICC or CICC, etc. Recent technological advances have developed systems integrating and combining the ECG method with electromagnetic tracking (*e.g.* Sherlock 3cg), providing the operator with the possibility of following the direction of the catheter in real-time until the optimal position is reached. This system has been recommended by NICE (National Institute for Health and Clinical Excellence) and allows confirmation of correct placement by highlighting a conventional color code (Diamond system). What has been described above is supported on a scientific level, in which the effectiveness of the tip location and tip navigation methods emerges, for positioning the PICC and CICC catheters without the need to carry out post-implantation radiological control.INS 2016 A post-procedural chest x-ray is not required if an alternate technique has been employed to confirm appropriate tip location.Confirmation of toe location with a post procedural chest radiograph remains acceptable practice and is only necessary when no intra-procedural technique has been employed to verify toe location.

CONCLUSIONS. INS 2021 Physicians or nurses with documented expertise in the matter can autonomously verify the position of the tip of a central venous catheter by interpreting the tracing of the intracavitary ECG or the post-procedural chest X-ray and then authorize the initiation of intravenous therapy on the basis of this evaluation. Summarizing with the intracavitary ECG method: • No exposure to x-rays • No risk of arrhythmias • The maneuver takes place under ECG monitoring • With the SF method, the atrium is entered with a catheter, not a wire guide • The operator knows where he is at all times • No risk of reaching the plane of the tricuspid • No risk of electrocution • Easy to implement • Easy to teach • Easy to learn. Unfortunately, even today, despite numerous studies, in many centers the most used tool for assessing the correct position of the tip of the central venous access is the chest radiograph.

P26

"PREDAPPIO, CITTÀ AMICA DELLE PERSONE CON DEMENZA": A TERRITORIAL PROJECT IN SUPPORT OF PEOPLE, FAMILY MEMBERS AND COMMUNITIES

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INTRODUCTION. The "Città amica delle persone con demenza" ["Dementia Friendly City"] is a project aimed at supporting people with dementia and their families through the promotion of inclusion and social participation in order to let them continue being part of social activities and community life, see themselves as valued individuals by living in a welcoming environment and mutual respect, and make their families and other people aware of the difficulties related to the disease and more willing to support them. This approach also aims at educating people about the importance of lifestyle and habits as a protective factor for the onset of neuro-cognitive disorders.

OBJECTIVES. The main purpose is to offer tools and skills to the different actors in a socialcommunity to enable people with dementia and their families to be able to live as autonomously as possible. To this end, they are provided with both primary and secondary prevention tools.

MATERIALS AND METHODS. As a preliminary study, 56 family member of dementia patients in the municipality of Predappio were asked to fill the Caregiver Burden Inventory between 2019 and 2020. These patients were currently being evaluated by the Unit of Geriatric evaluation, and subsequently compared to the list of patients followed by the Centro Disturbi Cognitivi e Demenze (CDCD), [Center for Cognitive Disorders and Dementias]. In 2022, different questionnaires were then administered to shop owners in the area, like hairdressers, bartenders, restaurateurs, greengrocers etc., to investigate their appetite in better understanding how neuro-cognitive disorders affect people, and participating in targeted training sessions on how to deal with customers affected by dementia. To this end, AUSL, the Municipality and the voluntary sector created a workshopwhich kick-started a series of interventions such as: opening of a listening center; domiciliary psychological support; carrying out a course of Memory Training. The listening centre was built around two different types or levels: • Level 1, aimed at: providing information on the available services; involvinglocal social services to start and facilitate care; establishing and managing anarchive to facilitate coordination and help final assessment data collection. • Level 2 aimed at: supporting caregivers requests on care behaviors; providingpsychological support and strategies for managing behavioral symptoms.The domiciliary psychological support was offered to three families supporting arelative with dementia (as diagnosed by the Forlì CDCC), in order to: providingemotional support and psycho-educational guidance to formal and informalcaregivers, carrying out cognitive stimulation interventions and providing information on the available services . Households were selected by our team focusing in particular on those patients with symptoms requiring an individual intervention, and the difficulty for families to access additional services.The Memory Training course consisted of eight weekly ninety minute long meetings, with the purpose of providing prevention tools on the development of cognitive issues, and raising participants awareness on mental and cognitive health in old age. Ten participants between 65 and 83 years old took part in the initial stage.

RESULTS. The study highlighted the high risk of caregivers' stress in the disease early stages, and its relation to the lack of adequate formal external support.The research carried out shows that 3 of the 59 shop owners didn't show anyinterest in detecting cognitive impairments in their customers. 12 of them reported that they never interacted with people with cognitive impairment. Finally, 20 would not attend training activities. There are two qualitative outcomes showing the positive impact of the MemoryTraining course: the continuity of participation and the desire to attend similarcourses, as shown by enrolling enough participants for at least two follow-upcourses. The initial informal screening phase has also allowed us to identify a new patient to be tested at CDCD, showing how our intervention can help finding people at risk. For what concern the home care procedure, 36% of CDCD dementia patients with an active therapeutic plan, with needs and characteristics in line with the project objectives, has been contacted by the psychologist in charge of the project.

CONCLUSIONS. In the project first 6 months, the intervention model showed a positive impact oncommunity, who welcomed with interest the creation of awareness-raising spaces, dementia education and prevention. The use of different types of intervention made it possible to respond to different needs and situations and to intercept additional needs, such as community-based activities aimed specifically at people with dementia and the organization of training courses for caregivers. To eradicate the stigma, due to its strong social roots, we undoubtedly need more time and be more relentless.

P27

APOE RS7412 C ALLELE ASSOCIATES WITH HIGHER PREVALENCE OF CAROTID ATHEROSCLEROSIS IN ITALIAN ELDERLY

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BACKGROUND. Apolipoprotein E (APOE) single nucleotide polymorphisms (SNPs), rs7412 and rs429358, that together define three alleles (ε2/ε3/ε4), of are well established risk factors for dementia, Alzheimer's disease, dyslipidemia and coronary atherosclerosis. Although most cardiovascular disease (CVD) occurs in elderly, there are few studies that examined on the effect of APOE-SNPs on subclinical atherosclerosis in these individualsAIM. The aim of this study was to perform a screening for the association between APOE rs429358 and rs7412 and carotid atherosclerosis among the elderly in southern Italy.

METHODS. The APOE rs7412 and rs429358 variants were genotyped in a cohort of 94 elderly individuals with age ≥65 years, of both gender who underwent carotid arteries ultrasonography at Clinical Nutrition Unit of the "Mater Domini" Azienda University Hospital.

RESULTS. In our study, the prevalence of carotid plaques was 71%. The frequency of APOE ε2, ε3 and ε4 haplotype were 10.6%, 78.7%, and 10.6% respectively. In the multinomial logistic regression analysis, ApoE rs7412 C/C genotype was associated with high risk of carotid plaque (OR=5.17, p=0.027; 95% CI 1.20/22.18), also after adjustment for classic risk factors for atherosclerosis (OR=11.16, p=0.012; 95% CI 1.69/73.52). In addition, the ε2 carriers had a lower prevalence (ε2=40% *vs* ε3=74.3% *vs* ε4=80%, p=0.04) and lower risk (OR=0.09, p=0.016; 95% CI 0.01/0.64) of carotid plaque compared with other alleles.

CONCLUSIONS. This study provides evidences of the association between APOE rs7412 C allele and carotid atherosclerosis in Italian elderly and explain the high risk of CVD in subgroups of elderly.

P28

EFFECTS OF A BRANCHED-CHAIN AMINO ACID-ENRICHED FUNCTIONAL FOOD ON ELDERLY INDIVIDUALS AT RISK OF SARCOPENIA

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INTRODUCTION. Sarcopenia, a prevalent muscle disease in older adults, is characterized by an age-related loss of skeletal muscle mass and function. Sarcopenia has been recognized as a clinical disease by the World Health Organization since 2016. Using the European Working Group on Sarcopenia in Older People in 2019 (EWGSOP2) definition and diagnosis, the prevalence of sarcopenia has been reported as 2 to 17% in subjects older than 60 years of age. Sarcopenia prevalence was estimated as 41.0% by the Asian Working Group for Sarcopenia (AWGS) criteria in individuals >65 years of age. Moreover, the global population of more than 60-year-old adults, which was 1 billion in 2019, is predicted to expand to 1.4 billion by 2030 and 2.1 billion by 2050, worldwide. Thus, with this growing aging population, sarcopenia is now considered a great public concern affecting individuals and the society. Peculiar symptoms include weakness, fatigue, loss of energy, balance problems, and trouble walking and standing. People with sarcopenia are at an increased risk of functional decline such as mobility disability as well as comorbid diseases, resulting in increased medical expenses. Unfortunately, there is no standardized cure, apart from doing more physical activity and embracing a balanced diet, but newly discovered substances start being considered. Substantial evidence has suggested that dietary modification can be a feasible tool to combat sarcopenia, such as the use of branched chain amino acids (BCAA) *i.e.* leucine, isoleucine and valine.AIM. The aim of the study was to evaluate the effect of an innovative functional food containing branched-chain amino acids on muscle function and mass quantity in elderly subjects.

MATERIALS AND METHODS. In this double-blind, randomized controlled clinical trial, a total of 68 Caucasian subjects of both genders aged ≥70 years with a BMI ≤28 kg/m² were enrolled. The subjects were randomized into two groups: the first group consumed the experimental functional food (a biscuit contained 30 g of whey protein, providing 6 g of BCAAs), while the second group consumed the standard biscuit. Using the criteria of the EWGSOP2, the participants exhibited reduced muscle function (handgrip strength <27 kg in males and 16 kg in females) or decreased Appendicular Skeletal Muscle Mass (ASMM) (<20 kg in males and 15 kg in females), or had a diagnosis of sarcopenia. All patients underwent anthropometric measurements, assessment of muscle function, body composition evaluation, systemic blood pressure assessment, ADL and IADL questionnaire, blood sampling and dietary intake assessment. All evaluations were conducted at baseline and after 6 weeks of treatment.

RESULTS. A total of 46 subjects completed the study, 24 in the group that consumed the experimental functional food and 22 in the group that consumed the standard food product. The consumption of the biscuit enriched with BCAA has been shown to be safe for human health. After 6 weeks of treatment, the functional food demonstrated an improvement in muscle strength (18.9±6kg *vs* 21.0±7kg p value=0.004). The subgroup of women seems to derive a greater benefit from the consumption of the functional food in terms of muscle strength (14.4±3 kg *vs* 16.1±3 kg, p-value=0.018). In the subgroup of sarcopenic individuals, a higher prevalence of improvement in skeletal muscle mass is evident in the group that consumed the experimental biscuit compared to the control group (92% *versus* 30% p-value=0.006).

CONCLUSIONS. The BCAA-enriched biscuit has proven to be safe for health and well-tolerated by elderly subjects. It improved muscular function and skeletal muscle mass (particularly in women). This biscuit prevented the loss of muscle mass and strength after 6 weeks of treatment.

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P29

RETURNING TO THE COMMUNITY FROM LONG-TERM CARE FACILITIES: A DESCRIPTIVE ANALYSIS OF DISCHARGED PATIENTS' CHARACTERISTICS AND NEEDS

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INTRODUCTION. Elderly patients accessing long-term care services wish to be able to return to their previous lifestyles (1). In order to facilitate a smooth transition from institutional care and back to community living, it is essential to have a comprehensive understanding of the needs and requirements of discharged patients. Moreover, 14% of patients who return to community need to go back to a long-term care institution (2). While most research has been focusing on predictors of discharge and long-term outcomes (3), there is a lack of data on actual short-term practical assistance needs of the former residents returning to community.Aims: We aimed to investigate and analyse the practical needs of patients transitioning from long-term care facilities back to the community.

MATERIALS AND METHODS. We conducted a retrospective analysis on the available health records of all the 305 patients who underwent spontaneous discharged from different Italian long-term care facilities (including nursing homes, rehabilitation centers, and intermediate care units) to their own communities, from Jan 2020 to May 2023. For each individual record, we retrieved socio-demographical and clinical characteristics and practical assistance needs as stated in the discharge summaries. Data were extracted by the Authors, recorded in MS Excel 2019 and subjected to analyses using RStudio software.

RESULTS. Our sample included 212 (69.5%) female individuals and 93 (30.5%) males. Age ranged from 48 to 98 years with a mean value of 82±9 years. Mean length of stay was of 66±75 days and 80% of the sample had spent less than 90 days at the institution upon discharge. Neuropsychiatric conditions, including dementia, were present in 101 (33%) cases. In our sample, 180 (59%) patients needed walking assistance at discharge, 88 (28.8%) were in need of a wheelchair, 2 (0.7%) were bedridden. 35 (11.5%) patients were able to walk independently. Overall, our findings revealed a wide range of different needs for assistance that were variously associated with each other: 123 (40%) patients need incontinence tools such as pads or pants; 118 (39%) need follow-up blood tests; 101 (33%) were to be assisted or supervised with medication intake; 62 (20%) needed daily blood glucose monitoring; 50 (16%) had pressure-wounds to be taken care of; 33 (11%) were on oxygen support therapy; 30 (10%) needed help with blood pressure monitoring; 24 (8%) required urinary catheter management; 20 (7%) had chronic pain; 15 (5%) presented dysphagia-related needs; finally another 13 (4%) required respectively surgical wounds needs and stoma management 12 (4%). Lastly, data on the lifestyle and accomodations prior to admission to the facilities were accessible for a subset of patients: of these, 101 individuals (42.6%) were able to live alone, while 39 individuals (16.5%) were beneficiaries of formal care.

CONCLUSIONS. Our study aimed to describe the characteristics of de-institutionalised patients and clarify their needs from the nursing and personal care point of view. The hereby presented data may have practical implications for healthcare providers, policymakers and caregivers, highlighting sensitive areas that may require additional support in order to implement a smoother transition from long-term care facilities to the community. Future efforts to facilitate such transitions would benefit from the implementation of highly sensitive structured tools for systematically screening the needs of discharged patients.

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STAFF EXPECTATIONS TOWARDS ELECTRONIC HEALTH RECORDS: A SURVEY AMONG HEALTHCARE WORKERS IN ITALIAN NURSING HOMES

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INTRODUCTION. In recent years, the global healthcare industry has increasingly incorporated digital tools and technologies. The electronic health records is now a mainstay of contemporary care standards. The long-term care industry has historically lagged innovation around the world (1, 2). Overall, factors contributing to the slow implementation of digital technologies in the Long Term Care field, compared to hospitals and other healthcare facilities or providers (1), have been determined to be lower sector-specific funding volumes, additional costs to recruit and train workers with information technology skills, uncertainty about the added value of electronic health records and the possible benefits, institutional culture and resistance to change (3). Regarding resistance to change, one study highlighted that staff acceptance and use of electronic health records are crucial to successful electronic health records integration and supporting patient-centered care (4). The adoption of electronic health record software inevitably triggers resistances or hopes - both in the workers who will be its end users, and in the patients who will be the witness of the modernization of the healthcare processes - which are crucial to be analyzed for the success of the technological implementation. However, data on expectations and reluctances before software adoption appear scarce in the context of nursing homes, whereas they are available for other healthcare sectors.Aims: This study aimed to understand healthcare personnel's expectations and relutances towards electronic health records in a sample of nursing homes used to work with paper-based healthcare records.

MATERIALS AND METHODS. An online, self-administered, structured questionnaire comprising multiple-choice and open-ended questions was sent to healthcare workers of eleven nursing homes that use paper-based healthcare records.across three Italian regions, from May 25th, 2023, to June 5th, 2023. The survey considered previous experiences, expectations and feelings towards features of electronic health record software and their potential impact on workflows. Data were analyzed and summarized using descriptive statistics. A p-value cutoff for statistical significance was set at 0.05 (95%). The internal reliability of the questionnaire was assessed by measuring Cronbach's alpha. The Kruskal-Wallis test was used to compare the responses between professional categories and age-groups.

RESULTS. We collected responses from 354 healthcare workers. The quantitative items of the survey showed reliable internal consistency with a measured Cronbach's α of 0.98. Notably, the majority of the sample (79,7%) did not have previous experience with electronic health records. However, among those who had previous experience with electronic health records software, most (93.1%) reported a positive experience. Notably, we observed no significant differences in the responses distribution across age groups. On the contrary, the professional role was related to the feelings.

CONCLUSIONS. Our results give insight on how the future implementation of electronic health records software is perceived

by the workforce from an understudied health sector. Expectations towards electronic health records were especially of interest: those who responded believed that electronic health record software would improve the efficiency of work processes, simplify access to information and improve communication both with internal and external colleagues. Operators also believed that electronic health record software would improve the safety and protection of operators. Considering that one of the most frequently reported barrier to implementation of electronic health record is the user reluctance, our results might be valuable informations for stakeholders in designing and adjusting healthcare informatics integration roadmaps and strategies.

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THE SELFY-BRIEF-MPI: VALIDATION OF A SELF-ADMINISTERED SHORTER VERSION OF THE MULTIDIMENSIONAL PROGNOSTIC INDEX TO EVALUATE MULTIDIMENSIONAL FRAILTY IN OLDER PEOPLE

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INTRODUCTION. Health practitioners are constantly in need of methods that allow them to screen the risk of frailty in a rapid yet effective manner. Frailty is an impairment in the functioning of various physiological systems and an increased susceptibility to stressors that develops with age. Along with this, it is associated with a higher likelihood of unfavorable health outcomes such as hospitalization, institutionalization, falls, and mortality. Thus, early detection of frailty is critical, since it is a reversible condition, affecting older individuals in multiple manners and to a variable degree: in the community dwelling, the incidence is estimated to be 10.7%, whereas in the hospitalized, the prevalence appears to be higher (41.4%). This heterogeneity contributes to the multidimensional nature of frailty, which requires the adoption of the Comprehensive Geriatric Assessment (CGA) in order to be successfully evaluated. Several tools have been developed based on the CGA, with the Multidimensional Prognostic Index (MPI) being one of the most robust, according to literature. The MPI was created 15 years ago, and multiple variants have been validated, including a brief version (Brief-MPI), a telephone-administered variant (Tele-MPI), and a self-administered form (Selfy-MPI). In response to the demands of clinicians, we created a self-administered, shortened version of the MPI (*i.e.*, the Selfy-Brief-MPI).AIM. The primary aim of this project is to analyze, for the first time in a sample of older adults, both inpatients and outpatients, the agreement between the new abbreviated self-administered version of the MPI and its standard version.

MATERIALS AND METHODS. A total of 125 subjects were contacted and enrolled at four Italian hospitals chosen voluntarily (Bari, Catanzaro, Palermo, and Genova), who were over 65 years old and able to give informed consent. On the same day, a health professional administered the MPI standard version to each participant, who then independently completed the Selfy-Brief-MPI. The new tool assesses the same 8 domains of the standard MPI but was composed of 18 items instead of the original 53. In addition, completion time of the Selfy-Brief-MPI is estimated to be about 5 minutes (*versus* the 15 minutes of the standard version).Three distinct tests were used to estimate the degree of agreement between the two versions: 1. Wilcoxon signed ranks comparison of the MPI index and its domains (category of risk); 2. Spearman's R correlation analysis; and 3. The Bland-Altman Plot (BAP).

RESULTS. The study included 105 participants (participation rate 84%). The average age was 78.8±7.0 years (range 65-99), with 46.7% being males. Fifty-five of them were hospitalized, while the remaining 50 were outpatients. Their health status was extremely diverse, although the most common illnesses were cardiovascular diseases (21/105) and cognitive impairments or psychological disorders (27/105). Overall, there was no statistically significant difference between the MPI indexes obtained from the two versions (Mean Standard-MPI 0.42±0.19 *vs* SELFY-BRIEF-MPI 0.41±0.18; p=0.104). As for the domains, Cumulative Illness Rating Scale (p=0.275), Activities of Daily Living, cohabitation status, and the number of medications taken (all p=1.000) did not substantially differ. Then, the correlation between the Selfy-Brief-MPI and the standard-MPI was very strong (R=0.86; p<.001). Only 5 out of 105 individuals (4.8%), according to the BAP, were beyond the range of agreement. Furthermore, we used the Standard-MPI cutoff of 0.66 (above a score of 0.66 is classified as frail) to calculate the Selfy-Brief-MPI's Area Under the Curve. According to the Selfy-Brief-MPI's Receiver Operating Characteristic (ROC) Curve, 90% of frail subjects—those with scores over 0.66 on the Standard-MPI—can be accurately identified by the new tool. Finally, we discovered that a Selfy-Brief-MPI value of 0.60 has the optimal sensitivity/specificity ratio (sensitivity=70%; specificity=92%) for the detection of frail people.

CONCLUSIONS. In conclusion, there is a good agreement between the SELFY-BRIEF-MPI and the MPI standard version. The Selfy-Brief-MPI can therefore be used to early detect older adults who may be frail or at-risk of frailty and to identify the areas that might be the focus of tailored interventions. Future research involving more participants is required to corroborate these findings.

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THE PRO-HOME: A CGA-BASED INTERVENTION IN AN INTRA-HOSPITAL SMART-HOME FOR PROTECTED DISCHARGE OF MULTIMORBID AND POLYTREATED OLDER PATIENTS

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INTRODUCTION. Hospitalized multimorbid patients, particularly the ones assessed as frail with the Comprehensive Geriatric Assessment (CGA), do not seem to have further benefits from an excessively prolonged hospitalization: according to literature, the risk of unfavorable health outcomes (*i.e.* re-hospitalization, institutionalization, death) seems negatively affected by longer hospital stay. Since it is established that multicomponent interventions are the most effective in improving older people's quality of life and could potentially reduce the length of hospital stay (Length of Stay, LOS), the PRO-HOME was designed and developed as a new model of transition and continuity of care in a home-like intra-hospital setting, that takes advantage of technological devices pertaining to gerontechnology.AIM. The main purpose was to assess the effectiveness of a multimodal and multicomponent intervention that includes assistive technologies and domotics in reducing LOS of hospitalized multimorbid and polytreated older people.

MATERIALS AND METHODS. The PRO-HOME project was designed as a multimodal and multicomponent intervention that includes assistive technologies and domotics that leads to a non-invasive assessment of the patient's health status. This study is a Randomized Clinical Trial including older patients aged over 65 and considered stable and dischargeable, recruited from the Acute Geriatric Unit. Sixty participants were enrolled and randomly assigned to: 1) Treatment Group, transferred to the PRO-HOME (equipped with 3d cameras, infrared sensor, smartwatch, tablet, padbot, and with architectural interventions that improve safety and comfort integrating a system of video/call alarm for patients and caregivers) and involved in a multicomponent intervention including physical and cognitive personalized activity training or 2) Control Group undergoing usual care. Both groups were assessed for frailty with the CGA-based Multidimensional Prognostic Index (MPI) through the investigation of eight domains. For the comparison of the LOS of the two subsample, Mann-Whitney's U test was performed.

RESULTS. The analysis of the two groups showed that there were no differences by gender (females 30/60, p=1.000), nor by age (Mean 82.7±6.5 years, p=0.177). Frailty levels in the sample revealed that: 23/60 were in MPI-1 (low risk of frailty), 36/60 were in MPI-2 (moderate risk of frailty), and only one participant was in MPI-3 (severe risk of frailty). Regarding length of stay, a statistically significant reduction in the treatment group was observed (Mean of LOS treatment group 2.2 days *vs* control group 4.3 days; p<.001). Moreover, when randomly picking two subjects (one from the treatment group and one from the control one), there's a 67% chance that the PRO-HOME participant stayed less in hospital than the other one (biserial rank correlation=0.673).

CONCLUSIONS. The PRO-HOME protected discharge model, including a CGA-based multicomponent intervention and a technological assessment, can reduce the length of hospitalization stay in multimorbid polytreated frail older people.

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CORRELATION BETWEEN LOSS OF MUSCLE MASS ASSESSED BY ULTRASOUND OF VASTUS LATERALIS AND ADVERSE OUTCOMES IN ELDERLY HOSPITALIZED

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BACKGROUND. Sarcopenia is associated with impaired ability to perform activity of daily living, loss of independence, low quality of life and death. In addition, it increases risk and costs of hospitalization [1] In the definition of sarcopenia the evaluation of muscle loss plays a centrale role. The Gold standards for evaluating the muscle mass are MRI, CT and DEXA. However, in the last years also the muscle's ultrasound evaluation has been validated, with the advantage of being unexpensive and easily available for the geriatrician. In 2021, Narici *et al.* [2] proposed a novel ultrasound score based on analysis of vastus lateralis, follow an accurate procedure of measuring his thickness (Tm) and his fibers' length (Lf) at the distal 35% of the muscle. The Lf/Tm value, or USI score (Ultrasound Sarcopenia Index score), was significantly related to the presence of sarcopenia, and it allow the stratification of patient according to severity of muscle loss.AIM. Evaluate the correlation between the analysis of muscle mass by USI score and adverse outcomes (complications or loss of abilities) during the hospitalization with specific focus on patients with dementia or delirium.

METHODS. In this prospective study 84 patients were enrolled, admitted for any cause to the Geriatric Unit of IRCSS Sant'Orsola-Malpigh. Within the first 48 hours we obtained the handgrip score, anamnestic scores (MNA, SARC-F, CCI, Fragility Index, ADL) and USI score. With the USI score the population was divided primarily between sarcopenic and no-sarcopenic people (USI-2) and then between the 5 categories reported in literature (USI-5: non-sarcopenic, pre-sarcopenic, moderately sarcopenic, sarcopenic, severely sarcopenic). For each patient we recorded the incidence of complications and the functional decline (evaluated with ADL and mobility impairment).

RESULTS. USI score, with a mean value of 5,10±0.82, identified 61,9% of patients with sarcopenia, of which 20,2% moderately sarcopenic, 19,0% sarcopenic, 22,6% severely sarcopenic. Handgrip values were suggestive of sarcopenia in 92,5% of patients, SARC-F in 70,2%. The 54,8% of patients presented one or more complications during hospitalization and the 56% experienced a loss of ability in ADL or loss of mobility status. Handgrip, SARC-F and USI-5 were significantly related to complications (respectivelyP 0.018, P 0.011 and P 0.017). USI-2 was even more significantly related with complications (P <0,001). In patients with delirium only USI score was related to complications (USI-2=P <0.001; USI-5=P 0.006).The impairment in ADL and in mobility was related with the USI score (USI-2 P <0,001; USI-5 P 0,002), but also with other scores such as SARC-F (P 0,015), MNA (P 0,023) and Fragility index (P 0,009). Observing the subgroup of patients with dementia and delirium only USI-2 score was related to ability impairment (USI-2 P 0,020; USI-2 P 0,045).

CONCLUSIONS. The ultrasound evaluation of vastus lateralis, performed through the USI score, seems to be an useful tool for the geriatrician, being related to the incidence of complications and/or ability impairment. This is true especially in patients affected by dementia or delirium, compared to other scores analized. In those kind of patients, the ultrasound evaluation with USI score could identify patients which may be sarcopenic, or at risk to develop sarcopenia, in order to offer nutricional or rehabilitative intervenction to maintain the status prehospitalisation.

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TELE-ULTRASOUND: WHICH METHOD IN GERIATRIC CARE?

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AIM. We are interested in telemedicine applications in geriatric care settings, especially for non-invasive diagnostic techniques, to improve time and accuracy of diagnosis, therapy and follow up. Tele-ultrasound (TUS) could represent a useful telemedicine application, in all health care setting, geriatric care too. Therefore, we have carried out a review of literature, to understand the possible modalities of TUS application in geriatric care settings.

MATERIALS AND METHODS. PubMed search of studies published in the last decade (from 2013 to August 2023) with keywords "teleultrasound or teleultrasonography and elderly".

RESULTS. 71 publications report TUS application methods of potential interest in geriatric care.The TUS includes the applications of ultrasound with allocation of patient and expert medical reporter (MR) in different locations, through a telematic interface: the location where ultrasound examination is performed on the patient (Point of Ultrasound Examination: PEX) is different from location of analysis and medical reporting (Point of Ultrasound Reporting: PUR). Resources for TUS must include:A) at PEX: a) network interfaceable ultrasound device, b) operator to perform and transmit the exam, c) hardware and software for digital transmission;B) at the PUR: a) hardware and software for receiving the examination, b) an expert medical doctor for reporting the examination;C) Telematic connection system between PEX and PUR.Three main modalities of TUS emerge from the literature: 1) Asynchronous one-way mode (AOM): execution, image collection and possible first reporting in PEX; transmission of documentation to PUR for first or second instance reporting (second opinion). This modality is not in real time and does not allow the MR to properly evaluate the exam performance in PEX.2) Synchronous one-way mode (SOM): execution and image collection with real-time transmission from PEX to PUR, but without active interaction from PUR to PEX; compared to the AOM, the SOM can improve the assessment of the exam performance by the MR who, however, cannot guide the exam by modifying its performance in real time.3) Synchronous two-way mode (STM): interactive procedure in real time between PEX and PUR; examination performance in PEX is dynamically viewed in PUR by the MR, which remotely guides the procedure (scans, probe movements, equipment adjustment, structures to be viewed, patient management, etc).This model assumes a real-time remote transmission structure, based on three contextually operative channels: 1) two-way audio; 2) PEX->PUR unidirectional video for transmission of ultrasound images in real time; 3) video for PEX->PUR unidirectional transmission from PEX environmental camera. MR can guide the execution of the exam from the PUR according to three procedures: 1) Robotic (STM-r), 2) Human, by healthcare professional (STM-p); 3) Human, by lay operator (STM-l).STM-r uses robotic ultrasound instrumentation, positioned on the patient in PEX and remotely operated by MR in PUR.STM-p uses ultrasound instrumentation that can be interfaced with a telematic network and an operator who performs the examination in PEX under the guidance of the MR from PUR; the operator is a healthcare professional (doctor, nurse or technician), trained for the procedure. STM-l differs from STM-p in the lay (non-professional) nature of the examiner; feasible, albeit with obvious limitations, in particular contexts (remote or difficult areas, however poor in health resources). Several companies have already developed hardware and software systems for the methods described, using 4G or 5G telematic networks.

CONCLUSIONS. TUS is potentially useful in geriatric care as remote diagnosis technique, for which we present some considerations. 1) Unlike other fields of telemedicine, TUS is a complex procedure that can be implemented according to different methods, each of which requires a validation process, especially for diagnostic accuracy. 2) Of the three modalities described, we deem STM preferable because it is interactive in real time, guided by an expert MR and adaptable to patient compliance. 3) Like the US, the TUS is an act of medical competence. 4) These aspects must be formally defined: a) professional qualification and skills for the roles of executor in PEX and MR in PUR; b) minimum standards of resources and procedures; c) training contents and objectives for executor and MR; d) specific legal profiles (professional liability, patient consent, privacy protection). 5) Guidelines or, at least, consensus documents among experts from relevant scientific societies are needed.

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FOCUSED ASSESSMENT WITH SONOGRAPHY IN THE ELDERLY (F.A.S.E.): A PROTOCOL FOR HOSPITALIZED ELDERLY PATIENTS

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INTRODUCTION AND AIM. Compared to young adults, the elderly have greater frequency of diseases, often multiple and with more complications, organ failure, disability and mortality. The clinical presentation is often atypical or poorly symptomatic, resulting in diagnostic delays. Furthermore, the compliance of elderly, especially frail ones, is often limited by mental, anatomical and/or functional deficits, which make medical history and physical examination (PE) difficult. For these reasons we have a high interest in non-invasive and low-risk methods that can integrate the PE (substituting in difficult cases), to improve the time and accuracy of diagnosis and therapy.Ultrasound (US) is one of these methods, which can now be performed with inexpensive and easily transportable equipment, in any geriatric care setting. We consider it useful to

propose a protocol for standardized US supplementing the PE in elderly patients, in order to broaden the information on their anatomical and functional status.

MATERIALS AND METHODS. We have defined Focused Assessment with Sonography in Elderly (FASE) as protocol consisting in the execution of bedside ultrasound examination upon admission to the hospital ward, oriented towards specific detections by physician with ultrasound skills, if possible immediately after the PE, in any case by the following midday.The detections are obtained according to a checklist including methodological standards: anatomical targets with related ultrasound scans and alterations to be detected (effusion, expansion, stones, etc.). Practically, FASE consists of a standardized procedure according to a check-list which provides mostly binary answers (yes/no, present/absent, not assessable) to specific questions (Q) for predefined target organs, through determined scans for each of they, as described below. - CHEST: right and left lung bases; 4 oblique intercostal scans, transverse subxiphoid scans; Q: consolidations, pleural effusion, multiple B-lines, pericardial effusion.- PERITONEUM: spaces between diaphragm-liver-kidney, diaphragm-spleen-kidney, bladder-rectum; Q: fluid effusion.- LIVER: oblique ascending subcostal scan, longitudinal scan; Q: longitudinal diameter, irregular profile, focal lesions, portal thrombus, biliary duct dilatation, hepatic vein dilatation.- GALLBLADDER: oblique ascending subcostal scan, longitudinal scan; Q: transverse diameter, stones, echogenic bile, wall thickening or lesions.- SPLEEN: intercostal scan IX-X space; Q: longitudinal diameter, focal lesions.- ABDOMINAL AORTA: longitudinal and transverse sub-umbilical scan; Q: diameter, patency, irregular walls, stenosis. - INFERIOR VENA CAVA: transverse and longitudinal sub-diaphragmatic scan; Q: patent, Ø>2cm, Ø<1.5cm.- RIGHT KIDNEY: longitudinal and transverse subcostal scans between anterior and posterior axillary lines; Q: Ø longitudinal, parenchymal thickness, dilatation of excretory tracts, stones, masses.- LEFT KIDNEY: idem.- BLADDER: suprapubic transverse and longitudinal scans; Q: volume, wall thickness, wall irregularities, masses, stones.- PELVIS: longitudinal and transverse suprapubic scan; Q: masses, effusion, prostate enlargement, endometrial thickening.- INTESTINAL LOOP: scans running along midline, midclavicular and anterior axillary lines; Q: dilatation, wall thickening.- VEINS: right and left transverse subinguinal scans with compression (CUS); Q: femoral trunk thrombosis. We performed a retrospective observational analysis of 47 consecutive elderly patients undergoing FASE (mean age 84 years; range 70-93; F28-M19), hospitalized for acute problems.We evaluated how many and which findings the FASE added to the patient's PE and, therefore, in how many cases it induced changes to the initial diagnostic and/or therapeutic trend.

RESULTS AND CONCLUSIONS. In all patients, FASE added detections to the PE, which in 35 cases (74%) induced at least partial changes in the initial diagnostic and/or therapeutic trend.The most frequent ultrasound detections, mostly multiple in individual patients, were: pleural effusion (n=22), pulmonary consolidation (n=8), dilatation (n=11) or depletion (n=6) of vein cava, renal hypotrophy (n=18), biliary stones and/or dilatation (n=13), renal cysts n=37. The quality of the procedure appeared limited for the pelvis, due to bladder depletion (in most cases due to catheter placed in ED).Our experience shows that, in the majority of elderly people hospitalized for acute events, the FASE detects additional alterations compared to the PE, such as to modify the initial diagnostic and therapeutic trend. However, a prospective study on a large series of cases is appropriate to confirm our results and clarify the effect of the FASE protocol on more specific aspects such as: length of hospital stay, complications, disability, mortality, costs.

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EXAMINING THE ASSOCIATION BETWEEN DYSGLYCEMIA AND COGNITIVE PERFORMANCES IN OLDER PERSONS

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INTRODUCTION. Type 2 diabetes mellitus (T2D) has been associated with cognitive impairment and an increased vulnerability to dementia. However, the relationship between prediabetes (also known as dysglycemia) and cognitive impairment, particularly in the older population, remains uncertain. This article aims to investigate the impact of impaired fasting glucose and T2D on cognitive abilities in a population affected by strokes.

OBJECTIVES. The objective of this study is to examine the influence of impaired fasting glucose and T2D on cognitive abilities in a population affected by strokes.

METHODS. Cognitive function was assessed in 682 subjects without a dementia diagnosis. The evaluation included the Mini Mental State Examination (MMSE) as a measure of global cognition, the Addenbrooke's Cognitive Examination Revised (ACER) rating scale, and a comprehensive neuropsychological evaluation from the GeriCo 3.0 project.

RESULTS. The study comprised 682 subjects (445F/237M) with a mean age of 76±9 years and an average education duration of 9.9±5.0 years. Among the participants, 193 (28.3%) had dysglycemia based on serum glycemic values. No significant differences were found in MMSE and ACER scores, adjusted for age and education, between the dysglycemia group and the normoglycemic subjects (26.42±0.22 *vs* 26.61±0.13 and 76.17±0.79 *vs* 76.21±0.50, respectively). However, a detailed analysis of neuropsychological functions revealed a significant difference in the Babcock story recall test, adjusted for age and education, with prediabetic subjects achieving lower scores (3.81±3.66 *vs* 6.29±4.75, p=0.006).

CONCLUSIONS. In a population of older individuals, dysglycemia is associated with poorer cognitive performance in the domain of memory.

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A MULTICOMPONENT PHYSICAL AND COGNITIVE INTERVENTION IMPROVES RESILIENCE IN OLDER PEOPLE: THE DANZARTE EMOTIONAL WELL-BEING TECHNOLOGY PROJECT

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INTRODUCTION. A key element of successful aging is resilience, defined as the ability to cope with adverse situations and to adapt to changes. However, interventions that might increase resilience in older people are yet to be clearly identified. AIM. The purpose of this study was to determine whether older

adults who reside in the community and in nursing homes can improve resilience through a technology-based multicomponent dance-movement intervention that incorporates physical, cognitive, and multisensory activation.

MATERIALS AND METHODS. Adopting a technology platform that enables real-time interactions, manipulation of visual and auditory contents, and real-time automatic analysis of motion parameters based on body-tracking, the DanzArTe program is divided into four weekly sessions. The Client Satisfaction Questionnaire-8 (CSQ-8), the Multidimensional Prognostic Index (MPI), the Short Physical Performance Battery (SPPB), the Psychological General Well-Being Index (PGWBI-S), and the Resilience Scale-14 items (RES-14) were used to evaluate 64 older adults from seven nursing homes and 58 community-dwelling subjects, for a total of 122 participants (mean age: 76.3±8.8 years, 91 females: 74.6%), before and after the intervention. For the statistical pre-post analysis, Mann-Whitney and Wilcoxon signed-ranks tests were performed.

RESULTS. Significant differences in MPI (Mean MPI Community-dwelling=0.13±0.10 *vs* Nursing home=0.42±0.18) and RES-14 (Mean RES-14 Community-dwelling 81.31±12.84 *vs* Nursing home 68.53±16.85) between nursing home patients and community-dwelling residents were observed at baseline ($p<.001$ for both analyses). Resilience considerably improved in the overall sample following the intervention (RES-14 mean 74.6 *vs* 75.7, $p=.037$) as well as in nursing home residents (RES-14 mean=68.1 *vs* 71.8, $p<.001$). All participants demonstrated a high level of overall program satisfaction with DanzArTe (CSQ-8 mean=23.9±4.4). SPPB, MPI, and PGWBI-S scores did not show any difference between baseline and the second assessment (all $p>.130$).

CONCLUSIONS. The multi-component DanzArTe technology-based intervention may increase resilience in older adults, particularly if they are nursing home residents. Further studies to identify the most effective length and duration of the DanzArTe sessions are needed.

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END OF LIFE: SURVEY ON CHOICES AND PERCEPTIONS AMONG THE POPULATION

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BACKGROUND. Euthanasia consists of all those actions deliberately carried out by health professionals whose objective is to directly cause death at the express, voluntary and repeated request of a capable patient who presents intense physical and mental suffering following an irreversible disease and that himself experiences it as unacceptable. Active euthanasia is distinguished, like determining death through the direct intervention of the doctor, using lethal drugs; from passive euthanasia, which instead indicates death, accelerated, by the abstention of professionals from carrying out health interventions that prolong life itself. In many European and non-European countries, euthanasia and/or assisted suicide practices are legal, instead, in Italy, they constitute a crime and fall within the hypotheses punished by article 579 (Murder of the consenting person) or by article 580 (Instigating or assisting in suicide) of the Penal Code. On the contrary, the suspension of treatment constitutes an inviolable right pursuant to art. 32 of the Constitution and Law 219/2017. With the sentence 242/2019 of the Constitutional Court, in Italy it is possible to request medically assisted suicide, that is the indirect help of a doctor to die only in some precise conditions. The Law also provides for the possibility for each person to express their wishes regarding health treatments, as well as the consent or refusal of diagnostic tests and therapeutic choices.The purpose of the study was to understand what is the opinion and knowledge of the population about "euthanasia" ,"assisted suicide", "aggressive treatment", "palliative care"; detect if there is a difference between users who are facing a degenerative disease compared to those who are not affected by pathologies and understand what are the factors that influence potential end-of-life choices, or Advance Treatment Declarations (DAP).

MATERIALS AND METHODS. Descriptive observational study developed by carrying out a bibliographic search by consulting databases such as PubMed and Cochrane to select and design the research questions and by administering the anonymous validated questionnaire, with prior informed consent, to a representative sample of the population. The tool used for data collection is made up of a personal data section concerning socio-demographic information, and a section containing the 16 items relating to knowledge and personal opinion on the topic under discussion.The interviews were conducted in the main influx points, waiting rooms, public relations office, of the various Departments of the Local Health Authority of AP with the prior authorization of the Health Department. On the other hand, the questionnaire developed with the Google Forms app was sent to associations of patients suffering from oncological or rare diseases and shared via links for social platforms. Data collection was carried out from January to May 2023. Data were processed with SPSS software.

RESULTS. N=344 questionnaires were analysed with a distribution of respondents for 60.75% females (N=209) and 39.24% males (N=135). 51.16% not affected by pathologies *VS* 48.83% affected by a pathology. The prevalence of the disease was highest in the 41-60 age group (52.97%).65% (N=165) subjects affected by pathology with reduced life expectancy have expressed their will to donate organs and tissues and 35% (N=57) have already drawn up a living will. From the analysis of the data it emerged that being in favor of euthanasia is significantly associated with the following variables: non-believer religious orientation ($p<0.001$), male sex ($p<0.005$) widowed marital status ($p<0.001$), disability ($p<0.0023$), absence of family caregiver ($p<0.0012$) legal assisted status ($p<0.001$) having suffered intense pain during a phase of one's life (n 185) ($p<0.005$)On the other hand, nationalities were not correlated (N. 57) ($p=0.81$) high level of education, (N.72), having assisted a family member in the terminal phase (N. 65) ($p=0.32$).

CONCLUSIONS. From recent scientific literature, many studies have shown that the number of requests for assisted suicide is continuously increasing due to the progressive aging of the population and the growing number of terminal illnesses.The results of this survey have highlighted a growing awareness of

dying aid treatments, confirming the closeness of health professionals and associations during all phases of citizens' lives and the respect they have for their choices at the end of life. In addition, from the data collected, it is necessary to provide more information on the issue of citizenship also through the Primary Care network.

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USE OF NON-PHARMACOLOGICAL THERAPY IN PATIENTS WITH BEHAVIORAL DISORDERS IN RSA

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INTRODUCTION. Dementia is a progressive, degenerative disease with a higher incidence in the elderly. This disease is characterized by the presence of cognitive deficits associated with alterations in the affective and behavioral sphere (manifesting with symptoms such as aggressive behaviors, wandering, depression). Non-pharmacological therapies (NF), combined with pharmacological, consist in the use of techniques useful for slowing down cognitive and functional decline and controlling behavioral disorders associated with the disease. This intervention must be personalized to the characteristics of the elderly person and must have as its objective the improvement of the quality of life in the social, functional, and emotional dimensions. The conceptual basis to support rehabilitation interventions aimed at people with neurocognitive disorders is supported by two characteristics of the nervous tissue: neuroplasticity and cellular redundancy (functional reserve). Scientific research relating to the effectiveness of non-pharmacological interventions highlights a positive impact on cognitive functions, neuropsychiatric symptoms, and quality of life, as well as enhancing the effects of pharmacological therapy.

OBJECTIVES. This study aims to demonstrate that the use of NF therapies in dementia patients with behavioral disorders leads to a reduction in the behavioral disorders present in these patients, while improving their quality of life in the affective and cognitive fields.

MATERIALS AND METHODS. In the study, n 15 guests (M3+F12) residing in our RSA were selected, diagnosed with dementia and who had a total NeuroPsychiatric Inventory (NPI) score greater than 30 (NPI a T0 punteggio medio 39.8±12,8). The guests had an average age of 87.7±8.8.These guests were subjected to NF therapies twice a week for 2 months, in particular doll therapy and sensory stimulation with white noise were used.RESULTS. At the end of two months the patients underwent the NPI test again, the average NPI score was 26±12.2. The average reduction in the NPI score at T1, compared to T0, was statistically significant ($p<0,05$).

CONCLUSIONS. Despite the limited series of cases and the still short observation time in which the NPI was repeated, the clear reduction in behavioral disorders in patients who followed activities such as doll therapy and sensory stimulation makes us understand that we need to invest in this type of intervention. Staff and caregivers must be trained on these rehabilitation techniques and the care of patients with dementia in RSA must include personalized non-pharmacological treatments.

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GLOBAL POSITIONING SYSTEM LOCATORS, FALL DETECTORS AND TOPOGRAPHICAL DISORIENTATION IN PERSON WITH DEMENTIA: RECENT EXPERIENCES IN THE MODENA AREA

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INTRODUCTION. The highest level of health policy recognises that Assistive Technologies (AT) are tools that can greatly affect the quality of life and participation of older people with disabilities: the WHO places them among the 4 pillars of health care in our century along with vaccines, drugs and medical devices. The WHO itself, in drawing up its list of 50 priority AT, placed fall-detecting technologies in 13th place and global positioning systems (GPS) in 15th place, thus reaffirming their importance. Even our list of AT prescriptions in Italy (All. 5 D.P.C.M. 12-01-2017) contemplates them as 'personal safety alarms', dividing them into 'tele-help devices' and 'passive safety devices'. Despite considering all this, as of today, these devices are not in fact evaluated, purchased and supplied by the AUSL as the companies producing these technologies have not yet certified these AT as medical devices according to the dedicated European legislation (Art. 2 EU Regulation 745/2017). In the collective imagination, the elderly person with dementia is a disabled person in a wheelchair and with altered mental status; in most cases, this is not true because most people with dementia can have a good level of autonomy: they do the housework, go shopping, frequent the community places, ask to lead a normal life, but because of their cognitive problems, they present, more than others, risks linked to the possibility of 'going the wrong way'. These risks can be overcome and minimised if the community and caregivers are aware, informed and have strategies and new technologies to help people with cognitive problems, not only the elderly, overcome these difficulties. For this reason, a 'co-ordinated intervention plan for the search and rescue of people suffering from neurodegenerative pathologies' sponsored by the Prefecture of Modena has been created, in which the Prefecture, the Municipality of Modena, the Local Health Authority and the Voluntary Associations are involved in an operational collaboration agreement.

OBJECTIVES. To implement actions aimed at evaluating and testing the personal safety alarms donated to the Modena AUSL through:- the creation of a pathway in the Modena AUSL across different services- the creation of a specialised warehouse dedicated to personal security alarms- operators trained in the evaluation of these technologies (occupational therapists)- measurement of satisfaction with the technologies proposed and provided by the Modena AUSL.

SURVEY METHODS. The survey is set up with a quantitative study through telephone interviews in which are submitted to the carers of people using personal safety alarms evaluated/provided by the AUSL of Modena validated tools and tests in Italian language to measure the outcome related to these AT and the quality of the evaluation process.

RESULTS. Twelve patients were recruited for whom personal safety alarms were assessed and provided, 9 of whom were able to administer questionnaires to their caregivers. A total of 18

instruments were administered: 9 QUEST 2.0 (Quebec User Evaluation of Satisfaction with assistive Technology 2.0) and 9 KWAZO (an acronym for "Kwaliteit van Zorg", a Dutch term meaning "quality of care"). The data on QUEST 2.0 (range 1-5) express a very high total satisfaction on average, almost in the totality of the answers the score 5, "very satisfied", emerges, both in reference to the assistive device (mean=4.97), and to the related services (mean=5).With regard to the KWAZO (range 1-5) in the totality of the answers a rating of "very good" emerges (mean=5).With respect to the time of intervention: all evaluations were carried out within 3 weeks after referral by the geriatrician.

CONCLUSIONS. The survey made it possible to collect preliminary data on satisfaction with the evaluation of personal safety alarms provided through the company pathway in the AUSL in Modena following the experimental reorganisation. The pathway made it possible to carry out an advisory and information activity on innovative technologies aimed at increasing personal safety and facilitating the participation, inclusion and quality of life of patients and their caregivers. Considering the data that emerged with respect to satisfaction, intervention times and appropriateness of evaluation and prescription, it is considered useful to increase the number of such devices available for evaluation and supply and to continue to stimulate companies in the sector to certify these AT as medical devices, in order to allow their acquisition through public company or regional purchasing procedures.

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THE POTENTIAL IMPACT OF IDEGLIRA ON PHYSICAL PERFORMANCES IN OLDER AND FRAIL PERSONS WITH TYPE 2 DIABETES PREVIOUSLY TREATED WITH INSULIN

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INTRODUCTION. Sarcopenia, characterized by the decline in skeletal muscle mass and function associated with aging, is more prevalent in individuals with type 2 diabetes mellitus (T2DM). Glucose-lowering medications can potentially influence these mechanisms, leading to either detrimental or beneficial effects on skeletal muscle. Many studies are showing that IDegLira (combination of insulin degludec and liraglutide) is effective in improving glycemic and metabolic control. No study so far has evaluated the effect on physical performances in older persons previously treated with insulin.

OBJECTIVES. With this study we aimed at evaluating the variation in physical performance parameters after six months in patients transitioning from insulin regimen to IDegLira.

METHODS. The study included patients who had been previously treated with different insulin regimens. All patients were switched to IdegLira. All subjects underwent a complete physical performance assessment using the Short Physical Performance Battery (SPPB), which included the feet side-by-side, semitandem, tandem, and single-leg stance, repeated chair stands and usual gait speed at baseline and at follow-up after 6 months.

RESULTS. The study included 36 subjects (17F/19M) with a mean age of 79.9±5.0-year-old. Switching these patients to IDegLira we found -after 6 months in the whole population from baseline- no significant difference in the total SPPB score (7.12±2.7 *vs* 7.25±2.4, p=0.293). Stratifying population by gender, in women a trend in increase in SPPB after six months was found (5.86±2.66 *vs* 6.88±2.26, p=0.214) as compared with men (8.24±2.3 *vs* 7.57±2.56 p=0.547) where a small decrease was observed.

CONCLUSIONS. The findings of this study indicate that transitioning older and frail persons from a complex insulin regimen to a fixed combination of basal insulin and GLP-1 receptor agonist, may lead to an improvement in physical performances with a potential gender effect. Our preliminary data needs to be confirmed in a sample population with acceptable size and power.

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PREVALENCE OF HYPERTENSION IN ELDERLY PATIENTS TREATED IN DAYCARE ALZHEIMER'S CENTERS AND EFFECTIVENESS OF NON PHARMACOLOGICAL BLOOD PRESSURE CONTROL IN THEIR CAREGIVERS

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OBJECTIVES. This study evaluated the blood pressure profile in patients affected by Dementia and the blood pressure control in those patients' caregivers either in retirement houses or in day centres for older people.

DESIGN AND METHODS. In our Geriatric Ambulatory and in the Alzheimer Evaluation Unit we have studied 97 elderly patients (52 women 53.60% and 45 men 46.40%) . Their mean age was 74+3 (DS+7.46) and the education rate was 5.15 (DS+3.92). 46 subjects had Alzheimer disease (47.42%); 23 had Vascular Dementia (24.0%); 23 had Mixed Dementia (24.0%) and 5 had Frontal Dementia (4.58%). Patients have been evaluated using the multidimensional approach (MDE). The caregivers of patients were studied using the Caregiver Burden Inventory (CBI) and ABPM.

RESULTS. We detected: 1) MMSE (Mini Mental State Examination according to education) mean score 15.98 (DS+6.32); 2) CDR (extended Clinical Dementia Rating Scale) mean score 1.62 (DS+0.63); 3) BADL (Basic Activity Daily Living) mean score 3.16 (DS+2.03); 4) IADL (Instrumental Activity Daily Living) mean score 2.01 (DS+2.35); 5) Tinetti Scale mean score 18.60 (DS+2.15); 6) CIRS (CI: comorbidity index - SI: severity index) mean score SI 1.82 (DS+0.50) - mean score CI 2.88 (DS+2.14).Hypertension indicated a prevalent comorbidity in 52 patients: 18 patients affected by Alzheimer Dementia; 19 patients had Vascular Dementia; 13 subjects had Mixed Dementia; 2 patients had Frontal Dementia.The blood pressure profile through clinical measurement showed mean blood pressure values: SBP 145+12 mmHg - DBP 83+14 mmHg. 32.7% subjects had controlled blood pressure. According to the course of treatment undertaken in the Geriatric Ambulatory and in the Alzheimer Evaluation Unit 53 out of 97 patients affected by Dementia were treated at our Ambulatory, while 44 joined specific care provisions at the Alzheimer day centres. The Caregiver Burden Inventory (CBI) showed a mean score of 41.96 (DS+8.80). Their clinical history indicated hypertension in treatment in 39 caregivers. and in those cases the caregiver stress was associated with the evaluation of the blood pressure profile through the BP monitoring. The caregivers were divided in two groups: group 1 included the caregivers of those patients treated at home; group 2 included the caregivers of tose patients admitted at Alzheimer's day centres and they were all studied for 12 months . In group 1 before and after the follow-up we detected: 1) SBP 159+15 *vs* 133+4 mmHG ($p<0.01$); DBP 94+7 *vs* 86+5 mmHg ($p<0.01$); 2) PP 77.12+4 *vs* 61.8+2 mmHg ($p<0.05$); while in group 2 before and after the follow-up follow-up we detected: 1) SBP 157+14 *vs* 128+10 mmHG ($p<0.01$); DBP 96+6 *vs* 82+4 mmHg ($p<0.01$); 2) PP 79.2+4 *vs* 57.4+4 mmHg ($p<0.05$).

CONCLUSIONS. This study showed the prevalence of hypertension in elderly patients affected by Dementia and a link to the different types of Dementia itself. The Hypertension Comorbidity was prevalent in cases affected by Vascular Dementia and Mixed Dementia. This study also assessed that the

stress degree and the prevalence of hypertension were much higher in caregivers of patients affected by dementia. Moreover the blood pressure control efficiency in the caregivers of subjects admitted at Alzheimer day centres was more significant too.

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WHAT DID WE LEARN FROM THE PERIOD OF COVID-19 REGARDING CARE IN NURSING HOMES

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INTRODUCTION. The problem of managing the older people with Covid-19 in the long term care facility is a problem of great relevance all over the world; experts say nursing facilities aren't well equipped to handle a pandemic such as COVID-19.The "coronavirus crisis" has revealed that little is still invested in these care settings both in terms of assistance and in terms of research in a sector that could make a great contribution to the knowledge of geriatric medicine.

AIM. We reported below some considerations based on our experience on the sixteen services of Karol Betania srl (long term care facilities, nursing homes for elderly and disable people) that we monitored and supported during the pandemic crisis. Isolation and quarantine are difficult to implement in these settings both because there is poor knowledge of the procedures to be adopted by the staff and because there is an objective difficulty in managing some types of older patients such as people living with dementia and behavioral disturbances; for example, people with Covid-19 positive who experience wandering are difficult to isolate, have difficulty wearing the protective mask and high risk of contaminating people and objects and need to be assisted in very large spaces with specially trained staff. An observed risk was the possible drop in care for non-Covid elderly as most staff were busy dealing with the emergency. In some cases, care staff proved to be a scarce resource during this period, both because it was impossible to train him or pass on the missing skills in such a short time (especially on health procedures), and because absenteeism phenomena have arisen in some contexts for fear of operators or movements of personnel between Nursing Homes and Public Health. An important issue to consider is the relationship with family members. They are often afraid that some truths (especially about the virus) may be hidden from them so they need reassurance and transparency about the health of their loved ones. Another aspect to consider was the relationship between Nursing Home and hospital; often this relationship, where the structure is not part of a social-health service network, is problematic.

MATERIALS AND METHODS. During the epidemic, given the scarcity of hospital beds, the need to stratify these patients was strengthened also to guarantee the most appropriate treatments. For this reason, it is essential to introduce validated tools for the prognosis in the Nursing home care practice: they are necessary for hospitalization, the optimization of pharmacological and non-pharmacological therapies, rehabilitation, and palliative care. It is also important to use suitable tools to guarantee comprehensive geriatric assessment (CGA) also and above all for prognostic purposes such as the Multi Prognostic Index (MPI) or the Clinical Frailty Scale. Identifying effective practices to reduce infection transmission is necessary to manage health outcomes and costs. In a nursing home, if there is a person infected, isolation precautions are recommended to prevent the spread of pathogens between other residents and staff. Quarantine and isolation are highly effective tools in the control of infections but they have been difficult to implement effectively in nursing homes where the percentage of people living with dementia is very high. In particular, the perception the infection control practices seem in conflict with quality-of-life goals and rights of the residents. People living with dementia might have difficulties in remembering safeguard procedures, such as wearing masks washing hands or avoid personal contacts, so it's more difficult to protect themselves. Their compromised cognitive functioning, insight and judgment impact their capacity to comply with restrictions. Moreover, complementary treatments or non-pharmacological therapies such as occupational activities, multi-sensory stimulation like massage and face-to face communication must be reduced or abolished. Autonomy reduction, less meaningful activities and less social contacts lead towards an increase of confusion and challenging behavior and reduce independency of the patient. If there are some Covid-19 cases, it may be necessary to share the accessible space in a Covid-in and Covid-free areas where people can move free minimizing risks and preserving freedom and independence. Within the Covid area the challenge is manage the infections risks and maintain the person dignity. This is difficult but possible and it is important to observe more rules. It's important that the staff receive all information about the infection, and the control practices and understand the importance of variations in daily practice. The level of anxiety among staff in nursing homes is high and they develop signs of exhaustion after prolonged time at work wearing uncomfortable protected tools and observing suffering residents. Education, some breaks and psychological support could be important tools to prevent the burn out. Psychologist can provide online consultation for the staff and for patients' relatives. Obviously, the environment should be more essential than usual, with less furniture and stuff, easy to clean. It's not necessary to avoid completely used nonpharmacological activities but it's possible to choose those activities without direct physical interactions such as listen to music, watch movies, read newspapers or novels. It's also important to maintain physical distance as much as possible. Occupational activities could be also provided. A strategy to avoid manipulation of materials from a resident to another could be the creation of personal boxes for every resident. These boxes could be filled with favourited materials that will be used only to one person such as clothes, coloring pages and pencils, newspapers and so on.

RESULTS. Create a separated facility for the covid positive patients permit the possibility to move free in the covid area, to have different night and day spaces and go on with meaningful activities this organization helps people with dementia not to develop delirium, sleep disorders, challenging behaviors and hypomobility syndrome. Moreover, the staff is less anxious, preserves a better relationship with the residents and it's more satisfied. Communication should be maintained with all residents. If a patient has got hearing impairment, worsened from the use of masks, could be introduced the use of blackboards or paper to write on. Family members have an important role in person-centered care with elderly people. Staff must be creating a partnership with the relatives to share his/her individualized assistance plan and explain how the assistance to all the covid area will be provided. It's important to permit to stay in touch with loved ones via telephone calls or video visits. If the covid area is at the ground floor could be possible organize visits from the window. Scheduling a time for a call, a video chat or a "window visit" may make it easier. Frequent contacts with the staff can also be useful as well phone call with the psychologist.

CONCLUSIONS. What we learned during the Covid19 crisis regarding care in nursing home? We understood the need to provide a new organization focusing on some essential point such as: spaces, staff, activities, technology, and family caregivers. As regard the spaces it is necessary to guarantee: safety environments to ensure wandering , suitable spaces for the activities (the residents must "do" safely), common spaces must increasingly become living spaces and not transit areas, offer the prosthesis also with the use of technology and innovative solutions (rethinking the traditional model).

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