Vol. 6 - Issue s1
September 2020

Editor in Chief:
Alberto Pilotto

SIGOT

pISSN 2465-1109
eISSN 2465-1397

geriatric care

34° Congresso Nazionale SIGOT
La complessità clinica del paziente anziano e la transizione nei diversi setting di cura

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Geriatric Care

Rivista trimestrale registrata
AGCOM/ROC LOMBARDIA 18881/2015

Direttore Responsabile: Camillo Porta

Stampa: Press Up s.r.l., via E.Q. Visconti 90
00193 Roma, Italy.

Stampato: settembre 2020.

Published by

PAGEPress Publications
via A. Cavagna Sangiuliani, 5
27100 Pavia, Italy
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USE OF DIRECT-ACTING ORAL ANTICOAGULANTS IN PATIENTS OVER 70 YEARS OF AGE AFFECTED BY ATRIAL FIBRILLATION: REAL WORD EVIDENCE DATA

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OBJECTIVES: Atrial fibrillation (AF), age related condition, is an independent predictor of cardiovascular (CV) mortality and morbidity. Thromboembolic events are the most related complication to AF. Elderly are exposed to a higher thromboembolic risk (TR) and hemorragic risk (HR); however oral anticoagulant therapy is underutilized and the use of vitamin K antagonists (AVK) presents effectiveness and safety limitation. Direct-acting oral anticoaugulants (DOACs) in phase III studies demonstrated same efficacy profile of warfarin with a lower incidence of major bleeds, in particular intracranial ones. This study analyzes DOACs efficacy and safety in patients with AF, over 75 years old affected by important comorbidities.

METHODS: 207 Caucasian patients were enrolled: 142 between 75 and 84 years and 43 aged >85 years, referred to the Geriatrics Department of the University Hospital of Catanzaro. Patients had non-valve AF with significant comorbidities and no contraindications to start therapy with DOACs. All patients underwent to clinical-instrumental and blood evaluation; TR was assessed through CHA2DS2VASc score and hemorrhagic risk was assessed through HAS-BLED score. Then, all patients started therapy with DOACs (Rivaroxaban 53.1%, Dabigatran 20.8%, Apixaban 20.3%, Edoxaban 5.8%) and were followed up with quarterly clinical and laboratory evaluations. Efficacy endpoint of the study was represented by incidence of stroke or systemic thromboembolism, for the safety endpoint major and minor bleeding events were evaluated in accordance with International Society on Thrombosis and Haemostasis.

RESULTS: Heart failure was present in 40.6% of the population, arterial hypertension in 92.3%, diabetes in 36.7% and COPD/chronic respiratory failure in 49.8%. Chronic kidney disease had a prevalence of 47.3% and most represented in patients >85 years. In addition, 14% of patients had a previous stroke/TIA and 28% a previous CV event. The mean population CHA2DS2VASc score was 4.7+1.1, underlines the comorbidities of the population. Older patients had a higher TR and HR related to higher CHA2DS2VASc and HAS-BLED score, and more impaired renal function and a higher number of drugs (7.7±2.3 *vs.* 4.5±1.6, p=0.046). Before using DOACs, in the group of patients aged 75-84 years only 50.7% of patients with CHA2DS2VASc 3-4, 62.1% of patients with score 5-6 and 63.6% of patients with scores 7-8 were correctly on AVK therapy, instead 32.9% in score 3-4, 36.2% in score 5-6 and 36.4% in score 7-8 were treated with antiplatelet agents, despite no clinical evidence. 17.2% of subjects with CHA2DS2VASc 3-4 and 2.3% of those with scores 5-6 did not take any antithrombotic therapy. In the age group ?85 years, where only 56.2% of subjects with CHA2DS2VASc 3-4, 51.7% of those with score 5-6 and 83% of subjects with score 7-8 were being treated with AVK. However 25% of patients in CHA2DS2VASc 3-4, 41.4% with score 5-6 and 16.7% with score 7-8 were on antiplatelet therapy. 18.8% of patients ?85 years with score 3-4 and 6.9% of those with scores of 5-6 did not take any antithrombotic therapy. During follow-up of 54.9±20.17 months there was an incidence of stroke/systemic embolism of 0.52 events/100 patients/year with no statistically significant difference between the two groups. The incidence of CV death was 0.86 events/100 patients/year and there was no difference between the two groups. All-cause death had significantly increased in patients ?85 years (p=0.024). The incidence of major bleeding was 0.17 events/100 patients/year and of minor bleeding 3.64 events/100 patients/year, without differences. There was only one case of fatal bleeding in the group >85 years of subarachnoid hemorrhage.

CONCLUSIONS: Data resulting from this study, obtained in elderly subjects with important comorbidities, compared with the results of the various trials and observational studies of real world evidence, confirm a good profile of efficacy and safety of the DOACs.

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PREDISPOSING FACTORS AND CLINICAL FEATURES OF ELDERLY PATIENTS WITH COVID-19 AND CO-INFECTIONS

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BACKGROUND: Viral infections can frequently occur with bacterial or fungal coinfections, possibly determining an increase in mortality rates and in-hospital length of stay. Coinfection rates in Influenza virus respiratory disease count up to 35% of cases and are mainly sustained by Streptococcus pneumoniae, Haemophilus influenzae and Staphylococcus aureus spp. Coinfection-related pneumonia is considered one of the most lethal complications during Influenza pandemics in 1918, 1957, 1968 and 2009.Chinese studies reported high rates of coinfections during the SARS-CoV-2 pandemics, especially in severe and critical forms. Elderly patients are at particular risk for infec-

tious complications of Covid-19, as old age and high comorbidity are ascertained adverse prognostic factors. Our study aims to describe geriatric patients with Covid-19 and coinfections, especially focusing on predisposing factors as copathologies, HIV, medications, patients' origin (community-dwelling *vs.* long term care facility), previous hospitalization (<6 months), vaccinations in 2019, previous antibiotic treatments (<30 days).

METHODS: We will describe clinical severity at presentation, microbiological findings (blood and urine coltures, nose swabs positivity other than SARS-CoV-2, antibiotic resistance), therapy (azythromicin, corticosteroids, immunosuppressors), NIV, IVN, ventilation etc.

OBJECTIVES: to analyse incidence rates of bacterial, viral or fungal coinfections in elderly patients with SARS-CoV-2 and to identify possible risk factors in the geriatric population.Study outcomesPrimary outcome: overall mortality and infectious-disease related in-hospital mortality Secondary outcomes: length of stay, ICU length of stay, duration of ventilation and antibiotic therapy, type of antibiotic used, delirium incidence, other adverse events.

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A STRANGE CASE OF GASTROENTERITIS AND VISION LOSS

Leonilde Bonfrate[1], Margherita Amodio[1], Amedeo Venezia[1], Antonella Greco[1], Maria Elena Novielli[1], Giuseppe Baldassarre[1]
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A 68-year-old woman with history of high blood pressure presented to the emergency department with an five-day history of diarrhea, generalized fatigue, episodes of vomiting, and nausea. She reported that all her symptoms were acute, and denied any recent travel, hospitalizations, recent antibiotic intake, or unintentional weight loss.On admission she was hemodynamically stable. Physical exam was relevant for pallor, and patient reported sudden vision loss. Workup revealed a hemoglobin level of 10 g/dL, a platelet count of 14,000 /cu.mm, a creatinine level of 10.3 mg/dL, a high lactate dehydrogenase (LDH) level of 1865 IU/L (normal: 100-240 IU/L), a decreased haptoglobin and increased liver enzymes, and D-dimer levels. On peripheral blood smear, the patient was found to have a moderate number of schistocytes. The ADAM metallopeptidase with thrombospondin type 1 motif 13 (ADAMTS-13) activity turned out negative.CT brain was normal. Genetic analysis confirmed the suspicion of atypical haemolytic uraemic syndrome. At the beginning she was treated with several sessions of haemodialysis and plama exchange. After discussion with nephrology consultants, the decision was made to start eculizumab 600 mg (based on weight), 5 days after first manifestation of neurological symptoms. She was vaccinated prior to the start of eculizumab therapy, and was started on penicillin prophylaxis. After 40 days of hospitalization, neurologic symptoms had resolved completely, renal failure ameliorated, and the patient was discharged from the hospital.Atypical hemolytic uremic syndrome (aHUS) is an extremely rare disease. The typical findings are represented by low levels of circulating red blood cells due to their destruction (hemolytic anemia), low platelet count (thrombocytopenia) due to their consumption and inability of the kidneys to process waste products from the blood and excrete them into the urine (acute kidney failure), a condition known as uremia. The brain, gastrointestinal tract, liver, lungs, and heart can also be affected. Specific symptoms can vary based upon the specific organ system involved.When the clinical presentation is suggestive of HUS, a prompt diagnosis is mandatory to begin the most appropriate therapy and to save patient.

THE ROLE OF VISUAL DISTURBANCES IN THE ASSESSMENT OF THE RISK OF FALLING IN THE ELDERLY: AN OBSERVATIONAL STUDY IN A GERIATRIC CLINIC

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INTRODUCTION: Fallings in the elderly have frequently a multi-factorial origin and represents a common and often preventable cause of morbidity, disability and mortality. Along with many others age-related changes, which reduce the elderly functional reserve, visual impairments are potentially modifiable risk factors for falling. The aim of the study is to verify whether there is an association between the risk of falling and visual or proprioceptive system dysfunction and to identify appropriate tools to assess the relationship between these two factors in a population of older outpatients.

MATERIALS AND METHODS: A monocentric cross-sectional observational study, involving outpatients (>65 years old, without cognitive impairment, evaluated through Mini-Mental State Examination, Short Portable Mental Status Questionnaire and Clock Drawing Test) attending our Geriatric outpatient center, from May 2019 to September 2019. Patients were screened with Morse Fall Scale, for the quantitative analysis of the risk of falling, and the Visual Impairment as a Risk for Falls (VIRFQ), for the qualitative analysis of visual disturbance. The questionnaire items were divided into 3 groups: 1.questions about distant vision disorders; 2.questions about near vision disorders; 3.questions about combined disorders.

RESULTS: 39 patients were recruited (age ranged 68-91, mean 82 years). Morse Scale data allowed to evidence low risk of falling in 3 patients, medium risk in 26, high risk in 10. The VIRFQ analysis showed that 56% of patients did not have an eye examination in the previous year (although 87% of patients used corrective glasses and 46% of them did not use glasses while walking). Visual disturbances were reported in 35% of group 1 subjects, in 38% of group 2 and 41% of group 3 (these data show how the visual deficit is often underestimated, as the minority of patients reports it). The ratio between the Morse scale's risk of falling values and the use of refractive optical aids showed that 87% of subjects with single-focal glasses had a low risk of falling, 89% of people with progressive glasses and 75% of people without lenses had a high risk of falling and no subject used trifocal lenses. Visual difficulties were often not resolved using corrective lenses and in 51% of cases had a significant impact on postural and gait stability, so much that it leads to loss of balance in everyday life.The routine administration of a questionnaire for visual impairment as a risk of falls (VIRFQ) associated with a well estabilished fall risk scale, such as Morse Fall Scale, results easily feasible and highlights the prevalence of visual fall risk factors in geriatric outpatients.

CONCLUSIONS: The study identifies the importance of developing scale assessment of the risk of falling, integrated with specific items regarding visual ability, in the elderly free-living. It also underlines the sensory deficit assessment's role in multidimensional assessment of the elderly.

ABDOMINAL AND PERISPLENIC ABSCESS IN AN ELDERLY PATIENT: ROLE OF THE ULTRASOUND

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INTRODUCTION: The objective of the study is to illustrate the role of ultrasound in the evaluation of a male patient 80 years old with septic fever after abdominal surgery for colon cancer.

MATERIALS AND METHODS: The 80 years old male patient with endoscopy positive for left colon cancer was admitted in the Hospital in surgery Department and after left colon cancer surgery was admitted in Geriatrics Department. The patient with abdominal pain and fever was first studied with ultrasound which revealed a perisplenic abscess of 7 cm x 4 cm , confirmed with abdominal CT.

RESULTS: The perisplenic abscess was treated with medical therapy. The surgical therapy was considered with high risk for the elderly patient, with diabetes, COPD and chronic heart failure. Medical therapy was prescribed and ultrasound after one week and after two weeks therapy was performed . Ultrasound showed a good result with a significative reduction of abscess volume after one week and after two weeks the patient was discarged without fever and without abdominal pain. The ultrasound after two weeks not revealed the abscess.

CONCLUSIONS: The study of our patient with poor general clinical situation and high surgical risks allows to choice medical therapy and ultrasound monitoring for two weeks. Ultrasound in the elderly patient was useful before surgery (liver without metastases), after surgery (detected perisplenic abscess), during and after medical therapy (ultrasound detected volume reduction after one week) and after two weeks the patient was discarged without abscess, and ultrasound confirmed the normal findings. After two months the ultrasound confirmed the absence of abscess and metastases. We suggest that in the elderly patients with fever and abdominal pain the ultrasound is the most appropriate diagnostic strategy because CT with intravenous contrast could be very invasive. If we need more informations with ultrasound it is very useful also CEUS and US guided biopsy.

ABDOMINAL PERIOMBELICAL MASS IN AN ELDERLY PATIENT: ROLE OF THE ULTRASOUND

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INTRODUCTION: The aim of the work is to illustrate the role of ultrasound in the correct diagnosis of an abdominal periombelical mass in a 85 years old female with abdominal pain.

MATERIALS AND METHODS: A 85 years old female was admitted in the Geriatrics Department with severe abdominal pain. The physical examination revealed an epigastric and periombelical mass. The pain was higher with palpation. The ultrasound was immediately performed.

RESULTS: The ultrasonography revealed a mass of 11 cm , with volume reduction after palpation. The ultrasound and clinical diagnosis was of epigastric ernia.

DISCUSSION AND CONCLUSIONS: The evaluation with clinical data and with ultrasound findings allows in all patients, especially elderly patients , to identify the disease and to prescribe the appropriate therapy. In our observation the ultrasound diagnosis was supported by the clinical examination. Ultrasound training of physicians as in emergency room as in Geriatrics and internal medicine departments, is very important in order to identify shortly the diseases of elderly patients. Infact often the elderly patients with few symptoms could be, in few heures, admitted in emergency, with fatal complications.

CONCLUSIONS: Ultrasound should be performed in all elderly patients with the clinical examination in emergency room.

GALLBLADDER CANCER IN ELDERLY PATIENTS: ROLE OF THE ULTRASOUND

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INTRODUCTION: The aim of the work is to illustrate the role of ultrasound in the early diagnosis of gallbladder cancer and in the management of the elderly patients. Gallbladder cancer is a highly aggressive disease and may be diagnosed as an incidental ultrasound finding in elderly patients. Cholelithiasis, gallbladder polyps, porcelain gallbladder, adenomyomatosis are common known associations with gallbladder cancer.

MATERIALS AND METHODS: We studied with ultrasound 20 patients (age from 75 to 95 years) with suspected gallbladder cancer or with suspected gallstones or with unexplained abdominal pain . All patients had gallstones revealed with ultrasound.

RESULTS: We detected in 12 elderly patients (9 women, 3 men) gallstones, sludge, irregular wall thickening greater than 1 mm, intralesional vascularity, focal wall discontinuity. In 5 patients (4 women, 1 man) the ultrasound diagnosed asymmetrical gallbladder wall thickening more than 3 mm , hepatic metastases and enlarged lymph nodes , the patients had abdominal pain and jaundice and pancreatic and duodenal infiltration was suspected. In 3 patients ultrasound showed gallstones and sludge, focal wall discontinuity, irregular wall thickening more than 2 mm and intralesional vascularity. In the 20 patients with gallbladder cancer the ultrasound diagnosis was confirmed with CT with intravenous contrast.

DISCUSSION AND CONCLUSIONS: The diagnosis of gallbladder cancer may be made by suspicious findings on work up for suspected gallstones disease or for jaundice or for unexplained abdominal pain. In the elderly patients often without symptoms, gallbladder cancer may be an incidental ultrasound diagnosis. Ultrasound is helpful for distinguishing adenomyomatosis from early stage wall thickening type of gallbladder cancer. In our clinical and ultrasound study of 20 elderly patients the ultrasound findings of irregular gallbladder wall thickening more than 1 mm with intralesional vascularity are significantly associated with gallbladder cancer. The ultrasound findings of gallstones are always associated with cancer. Often in elderly patients the ultrasound is the only diagnostic method which allows to suspect gallbladder cancer. CT with intravenous contrast is often very invasive. We suggest that in all elderly patients with gallstones, also without symptoms, ultrasound should be performed with interval of 6 months in order to identify early the characteristic ultrasound findings of gallbladdder cancer. The surgical treatment for completely resected early stage gallbladder cancer can improve survival also in elderly patients. In the elderly patients with ultrasound findings of metastatic disease palliative chemotherapy or radiotherapy could improve symptoms and quality of life and ultrasound should be performed for monitoring elderly patients.

ROLE OF THYROID ULTRASOUND IN THE FOLLOW-UP OF ELDERLY PATIENTS WITH CHRONIC ATRIAL FIBRILLATION TREATED WITH AMIODARONE

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INTRODUCTION:The objective of the study is to illustrate the role of ultrasound in the thyroid evaluation in elderly patients (75-90 years old), with atrial fibrillation (FA) in therapy with amiodaron or with other antiarrhythmic drugs, including patients with alterations of thyroid function and patients with normal laboratory examinations. In particular by detecting the incidence of thyroid pathology (with alterations of laboratory or only with ecostructural alterations) in the group of patients in amiodaron therapy compared to a group of patients in therapy with other drugs.

MATERIALS AND METHODS:The US was performed in 600 patients with FA, (75-90 years old), divided into two groups of 300: the first group was in therapy for at least 6 months with amiodaron while the second had never taken amiodaron. All patients were examined with a first thyroid US at the time of diagnosis of FA and then every 4 months for two consecutive years.

RESULTS: In the group of 300 patients where amiodaron was not prescribed, the first US showed in 20% thyroid diseases (cysts, nodules, chronic thyroiditis, diffuse goitre). Laboratory samples showed 50% alterations in thyroid function (70% hypothyroidism, 30% hyperthyroidism). In the group of 300 patients where amiodaron was prescribed, the first US showed in 20% thyroid diseases comparable to those of the first group, however the second US after four months of taking amiodaron found an increase of 10% of structural alterations,while only 5% of them showed alterations of the laboratory esaminations and to require the suspension of the amiodaron. The following US after 8 months of amiodaron, detected a further 5% of new thyroid diseases with a further 3% of laboratory alterations and finally the US at 12 months detected a further 5% of ultrasound alterations and a further 5% of functional alterations. Therefore the observation was suspended after one year and in all patients with alterations of thyroid function has been replaced the amiodaron with other drug. In the group of patients that they had not taken amiodaron US in the 8 and 12 month have not shown variations and even laboratory esaminations have not undergone variations.

CONCLUSIONS:The results of the follow-up carried out for one year on 600 patients show that the ecostructural alterations and those of the thyroid function are quite precocious in the old and induce, after 12 months at the most to suspend the amiodaron. It does not exist instead,during the 12 months of observation a variation of the ultrasound and functional aspects in patients who have not taken amiodarone.

MISDIAGNOSED SEVERE OSTEOPOROSIS IN INPATIENTS: IS ITS PREVALENCE HIGHER IN ELDERS?

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INTRODUCTION: Prevalence of vertebral fractures (VFs) related to osteoporosis (OP) increases by aging, leading to a higher risk of additional fractures, disability and death. In inpatients, VFs are often neglected with consequent delay in OP treatments leading to prolongation of hospitalization and reduction of quality of life. The aim of our study was to evaluate if misdiagnosed severe OP (*i.e.* with VF) more frequently occurs in elder than in younger inpatients in a general medicine unit.

MATERIALS AND METHODS: We evaluated the previous spinal imaging of our Medicine Unit inpatients without severe OP between January 2019 and December 2019. We collected demographic data, previous or current OP treatment, and presence/number of VFs about inpatients older or younger than 75. Descriptive data were presented by medians (interquartile range [IQR]) for continuous data or as numbers (percentages) for categorical data. Differences between subgroups were analyzed with chi-square or Kruskall-Wallis tests as appropriate. p-values <0.05 were considered statistically significant.

RESULTS: 793 subjects were admitted in the inpatient's clinic: 235 were enrolled (135 females and 100 males with a median age of 76.0 [64.0-83.0] years, 134 younger than 75). One or more vertebral fractures were present in 28.9% (68/235) subjects (50 older *vs.* 18 younger inpatients p<0.0001); 47% (32/68) of all selected patients had two or more vertebral fractures (23 older *vs.* 9 younger inpatients p=0.0069). Most patients (55/68) with VFs had not previously received an OP diagnosis (42 older *vs.* 13 younger inpatients p 0.28). Severe OP was misdiagnosed in at least 8.6% of all inpatients. The prevalence dramatically increases (about 29%) in subjects with previous spinal imaging showing one or more VFs. VFs more frequently occur in older inpatients than in youngers; in patients with VFs, OP diagnosis is neglected especially in the elders but there is no statistically significant difference in the two groups (respectively 84% *vs.* 72% p 0.28).

CONCLUSIONS: Independently by age, more attention should be given to this important disease, which is known to be an additional risk factor for disability, loss of independency and mortality.

PREVALENCE OF CHRONIC KIDNEY DISEASE IN HOSPITAL DISCHARGES: PRELIMINARY RESULTS FROM PRHODI STUDY (PROTECTED HOSPITAL DISCHARGES STUDY)

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INTRODUCTION: Chronic kidney disease (CKD) is an independent cardiovascular risk factor. Glomerular filtration rate (GFR) is generally accepted as the best indicator of kidney function. As direct measurement of GFR is complex, GFR is commonly estimated based on serum creatinine (SCr) concentration. The Modification of Diet in Renal Disease (MDRD) equation is widely recognized equations to estimate GFR in adults; the Berlin Initiative Study 1 (BIS1) equation was designed for older adults and the more recent FAS equation for estimating the glomerular filtration rate that can be used across the full age spectrum. The knowledge of prevalence in general population may help to early detection of CKD and prevent or delay its progression. The aim of our study was to measure the difference in prevalence of CKD by three differente GFR equations in elderly people.

METHODS: The population screened comprised 488 patients consecutively enrolled after Hospital Discharge from Geriatric Unit of "A.O. Pugliese-Ciaccio", Catanzaro, Italy. GFR was estimated using the MDRD, BIS1 and FAS equations.

RESULTS: Mean age was 81,54±6,91 years. GFR by MDRD, BIS and FAS, were 51,55±22,58, 47,11±17,19 and 46,56±19,44mL/min/1.73 m2 respectively (F=9,262; p 0,000). The prevalence estimates of CKD stages by MDRD, BIS and FAS, were:5,33%, 1,02% and 2,46 %, respectively for stage 1 (GFR<90 ml/min per 1.73 m2); 24,59%, 21,93% and 21,72 % for stage 2 (GFR 60-89); 28,28%, 27,87% and 25% for stage 3a (GFR 45-59); 22,95%, 30,74% and 28,48% for stage 3b (GFR 30-44); 18,85%, 18,44% and 21,93% for stage 4 (GFR 15-29); and 0%, 0% and 0,41% for stage 5 (GFR <15). The average difference between BIS and FAS was 0,55 mL/min/1.73 m2. The difference between MDRD and BIS and between MDRD and FAS was 4,44 and 4,99 mL/min/1.73 m2, respectively.

CONCLUSIONS: Our study show that MDRD, BIS1 and FAS equations cannot be considered interchangeable to assess eGFR in elderly people. The prevalence of stage 3b and 4 CKD varies strongly following the method used for estimating GFR. Such discrepancies must be a important impact on our therapeutic approach.

ASSOCIATION OF MULTIDIMENSIONAL FRAILTY AND PHYSICAL FRAILTY WITH MORTALITY IN COMMUNITY-DWELLING OLDER PEOPLE: A FIVE-YEAR LONGITUDINAL FOLLOW-UP COHORT STUDY

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INTRODUCTION: In older people, frailty is a common syndrome that carries an increased risk of poor health outcomes, including mortality. Two main models previously described frailty as a loss of physical functions or an accumulation of multiple deficits. Recently, a novel conceptual model of multidimensional frailty has emerged which is based on the loss of harmonic interaction among multiple domains (biological, functional, cognitive, psycho-social and economic) that ultimately leads to homeostatic instability. In the present study, we compared a multidimensional frailty tool, the Multidimensional Prognostic Index (MPI), with the physical frailty index developed in the Cardiovascular Health Study (CHS) in terms of their ability to predict death in community-dwelling older subjects.

METHODS: This observational longitudinal cohort study enrolled 407 community-dwelling older subjects, each of whom underwent a comprehensive geriatric assessment (CGA) that included calculation of the MPI and CHS. Mortality was then recorded over the following 5 years. Cox-PH models were used to assess the effects of CHS and MPI: the difference between the observed C-indexes was used to compare the performance of the two models in predicting mortality.

RESULTS: In the sample as a whole (mean age 77.5±4.5 years; 51.6% female), the baseline prevalence rates of physical frailty and pre-frailty were 9.3% and 26.5%, respectively, according to the CHS index. According to the MPI, 2% of subjects were in the high-risk category (MPI-3) and 18% in the moderate-risk category (MPI-2). During the 5-year follow-up period, 53 subjects (13%) died. Both MPI and CHS were able to predict mortality; however, MPI was significantly more accurate than CHS (C-index=0.69 and 0.59, respectively), with a statistically significant difference of 10% (95%CI 0.02-0.18, p=0.013).

CONCLUSIONS: Multidimensional frailty, as assessed by MPI, predicts 5-year mortality in community-dwelling older people better than physical frailty, as assessed by the CHS index.

SELF-ASSESSED FRAILTY AND POOR ADHERENCE TO THE MEDITERRANEAN DIET: A POPULATION-BASED SURVEY IN COMMUNITY-DWELLING OLDER PEOPLE (THE PRESTIGE STUDY)

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INTRODUCTION: Close adherence to the Mediterranean diet is reported to be an important preventive strategy in older people at risk of frailty. Recently, a self-administered version of the Multidimensional Prognostic Index (SELFY-MPI) for stratifying older subjects at risk of frailty was developed and validated in community and primary care settings. The aim of this study was to evaluate the association between the SELFY-MPI Short-Form score and adherence to the Mediterranean diet in a large population of community-dwelling older people.

METHODS: The MEDI-LITE score was used to assess adherence to the Mediterranean diet; the SELFY-MPI Short Form (SELFY-MPI-SF) was used to evaluate frailty by combining information on basic and instrumental activities of daily living, mobility (Barthel mobility), cognition (Test Your Memory-TYM Test), nutrition (Mini Nutritional Assessment-Short Form), comorbidity, medications and co-habitation status.

RESULTS: A total of 1354 subjects (mean age=77.3±7.6 years, range=56-107 years; females=55.8%) were enrolled. The mean SELFY-MPI-SF score was 0.20±0.15 (range=0.0-0.88) and the mean MEDI-LITE score was 10.4±2.66 (range=0.0-17.0). A significant correlation between age and SELFY-MPI-SF (Pearson coefficient=0.441, p<0.001) and a negative correlation between age and MEDI-LITE score (Pearson coefficient=-0.089, p=0.001) were observed. Moreover, a significant negative correlation emerged between SELFY-MPI-SF and low MEDI-LITE scores (Pearson coefficient=-0.152, p<0.001).

CONCLUSIONS: Older people at risk of frailty showed poor adherence to the Mediterranean diet. The screening of older subjects by means of the SELFY-MPI-SF may be useful in order to identify those subjects at risk of frailty, with a view to implementing strategies to enhance adherence to the Mediterranean diet.

USEFULNESS OF THE MULTIDIMENSIONAL PROGNOSTIC INDEX FOR MEASURING FRAILTY PROGRESSION. A 5-YEAR LONGITUDINAL COHORT STUDY IN COMMUNITY-DWELLING OLDER PEOPLE

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INTRODUCTION: The progression of frailty is associated with lower quality of life, increased healthcare costs, and possible mortality in older people. The aim of this study was to evaluate the usefulness of measuring frailty progression, as assessed by means of time-changes in the Multidimensional Prognostic Index (MPI), in order to predict mortality in community-dwelling older people over a 5-year follow-up period.

METHODS: This observational, longitudinal, cohort study included 407 community-dwelling older subjects. At the baseline (V1), all subjects underwent a comprehensive geriatric assessment (CGA) to calculate MPI; in addition, physical functions were assessed by means of the Short Physical Performance Battery (SPPB), Timed Up&Go test (TUGT), gait speed (GS) and handgrip strength test (HGS). The same clinical and functional assessments were repeated 30 months later during a follow-up examination (V2). Mortality was then recorded over a 5-year period.

RESULTS:The mean age of participants at V1 was 77.5±4.5

years (females=51.6%). Before V2, 19 subjects (4.7%) died; 261 (67%) of the survivors agreed to undergo the V2 evaluation. The mean basal MPI value was 0.23±0.13. From V1 to V2, the mean time-change in the MPI value was +0.06±0.08. Overall mortality during the 5-year follow-up was 13% (53 subjects). In a multiple Cox model including the time-changes between V1 and V2, only MPI proved to be significantly associated with death (HR 1.04, p<0.001), with a 4% increase in 5-year mortality for each 0.1 increase in MPI values. No significant associations were observed between 5-year mortality and physical function parameters, *i.e.* SPPB, TUGT, GS and HGS.

CONCLUSIONS: Frailty progression, as assessed by changes in the MPI score over time, is significantly associated with death in community-dwelling older people. Periodic re-assessment of the MPI is useful for monitoring older people at risk of negative clinical outcomes.

HEALTH SERVICES AND THE NEEDS OF THE PEOPLE WITH YOUNG-ONSET DEMENTIA: THE HEALTH PROFESSIONALS' PERSPECTIVE

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INTRODUCTION: Young-onset dementia (YOD) is becoming one of the major challenges national health systems is encountering. Although the experiences of people with YOD begun to be described some years ago [1, 2], the reports analyzing the experiences of professionals operating in the health services are still limited [3, 4]. By interviewing a convenient sample of Italian professional working in the territorial health services, this qualitative research aims at triggering the discussion on the match between the structures of the health services and the needs of the people suffering of YOD.

MATERIALS AND METHODS: A group of 33 professionals working in 14 health and welfare services in the Italian territory were interviewed. The interviews were designed to gather the participants' point of view about services functioning, the problems emerging during the people with YOD's care and the implemented responses. Once collected, the interviews were transcribed and analyzed using the content analysis [5].

RESULTS: The analysis revealed the following themes: A) services responsiveness towards the issues raised by people with YOD; B) request of specific training on YOD; C) need to increase support to cope with the psychological impact that the relationships of care bring with them; D) new proposals aimed at improving the quality of the assistance offered by the services to people with YOD and to their families.

CONCLUSIONS: The themes emerged from this research contribute to enrich the scientific and political debate about the need to implement heath structures capable to provide timely and personalized care without underestimating the burden that the care staff can manifest.

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CHALLENGES IN THE PERFORMANCE OF REAL-LIFE STUDIES IN OLDER PATIENTS: FOCUS ON LONG-TERM CARE FACILITIES

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BACKGROUND: Due to the aging of the population, geriatric studies are becoming increasingly important. Residents of nursing homes are rarely included in these studies. The aim of this study was to address the prevalence of age-related aortic valve stenosis (AVS) which displays atypical symptoms in advanced age and whose treatment might have profound impact on functioning and quality of life.

METHODS: Twenty-two of 500 planned nursing home residents aged 65 and older could be included in the study to undergo a cardiologic examination and the Comprehensive Geriatric Assessment (CGA)-based Multidimensional Prognostic Index (MPI).

RESULTS: After five attempts to obtain permission to conduct the study in 30 institutions patient recruitment was stopped with 22 patients collected in one institution. Interestingly, AVS could be suspected in two persons, who, according to the MPI belonged to the MPI-1 in one, and to the MPI-2 in the other case.

CONCLUSIONS: Challenges arisen during the implementation are multiple and need to be addressed through targeted healthcare actions. Closer cooperation, awareness of the knowledge gap and simplification of requirements could enable a more successful implementation.

EVALUATION OF QTC INTERVAL PROLONGATION IN ELDERLY PATIENTS HOSPITALIZED WITH CORONAVIRUS DISEASE 2019 (COVID-19) IN POLITHERAPY: OUR EXPERIENCE

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INTRODUCTION: There is currently no effective therapy for SARS-CoV-2. Hydroxychloroquine has shown some ability to reduce viral load in these patients, especially in association with azithromycin or antiviral drugs. However, HCQ can cause prolongation of the QT and QTc interval, with the possibility of developing cardiac toxicity. Information regarding the safety of its use in COVID 19 patients in polytherapy is contradictory.The aim of our study was to analyze the prevalence of QTc prolongation in a group of elderly people already on drug treatment, potentially predisposed to this side effect.

METHODS: We retrospectively analyzed the ECG traces of 25 hospitalized SARS-CoV-2 (PCR) elderly patients before and after hydroxychloroquine binding; azithromycin was associated with 20 patients.

RESULTS: QTc prolongation was observed in 15 patients (60%) (418.55 ± 24.95 *vs.* 458.06 ± 58.61; p = 0.007), excessive QTc prolongation >500 msec or more and/or increase in ?QTc >60 msec or more was observed in 7 patients (28%). Interestingly, the magnitude of the increase in QTc and ?QTc compared to baseline values was more pronounced in those treated with HCQ in combination with at least two additional drugs potentially at risk of prolonging the QTc interval. No patient experienced severe arrhythmias or sudden death.

CONCLUSIONS: We concluded that careful monitoring of QTc, drug pairing is necessary when considering Hydroxychloroquine in patients with COVID-19, especially if elderly with comorbidities and polytherapy at risk of arrhythmic events, even lethal.

EARLY DEMENTIA OR NEUROPSYCHIATRIC DISORDER?

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INTRODUCTION: Posterior Cortical Atrophy (PCA) is a unique neurodegenerative condition with predominant deficit in higher order visual processing, typically with onset occurring at age between 50–65 years and often neglected for unusual presenting symptoms. AD is the most common (underlying pathology) possible variant but it can also be associated with non-AD pathologies. All PCA patients demonstrated visual impairment, such as in basic visual tasks (perceptual) such as recognizing colour, form and point localization, or in more superior processing (associative) visual performances. Anterograde memory, executive functions and linguistic skills are usually preserved in the earlier stages of the disease. Nevertheless, many longitudinal studies have showed that, due to overlap between PCA and Alzheimer's disease, some cognitive disfunctions, such as language impairment, could be present as a neuropsychological distinctive clinical element. Furthermore, typical neuropsychiatric symptoms, especially apathy, depression and anxiety, that are most common in PCA, could be mistaken for mood disorders, in view of the young age of onset. Our aim is to describe a case-report of a female patient, who received the diagnosis of PCA four years after the onset and left her job for speech impairment and depression.

CASE REPORT: We present a case of a 58-year-old female who was sent to be subjected to neuropsychological evaluation for language problems and psychomotor slowdown. Three years earlier, she had left her job, for difficulty in reading. Conflictual relationship with her husband could be suggested since she was accompanied by her mother, her main caregiver. Head trauma was not signaled. There was no familiarity for cognitive or psychological diseases. In her clinical history there were mood changes with marked apathy treated with several antidepressants that she did not tolerated because of side effects (constipation, dry mouth). In the past, she had suffered of hyperthyroidism during pregnancy, but with actual good biochemical values. Blood test showed anemia with iron deficiency in dysmenorrheal and initial menopause. All functional autonomies were completely and apparently preserved, including driving the car. Clinical and neurological examination was normal, except in coordination tests, (that were pathological.) A previous MRI of the brain already showed cortico-subcortical parietal atrophy with ventricular dilation of parietal convexity.In 2017 her Mini Mental State Examination was 28/30. On the last Mini Mental Examination taken in 2019 she scored 18/30. The prevalent cognitive deficits were visuoperceptive and linguistic.Spontaneous speech was slowed because of marked anomia and characterized by semantic parapahasic errors, yet fluent (as semantic dementia). Repetition was relatively spared for words, but impaired for nonwords and sentences (PCA similar to PPA). Comprehension was relatively preserved for ecological verbal orders (different form of semantic dementia). Severe alexia prevented her from reading what she had written with difficulty. She marked severely the "X-O-N" test (Warrington & Taylor; De Renzi, 1993). Object recognition was fully compromised for visual but not tactile presentation (dd semantic dementia). Visuospatial exploration was impaired, but without neglect as there was not asymmetry in her performance (Albert's cancellation test). Ideational limb apraxia was also present.The qualitative brain tomoscintigraphic investigation showed severe hypofixation, mainly on the left side, of the precuneus, posterior and bilateral temporal girdle, and of the lateral bilateral occipital lobe.

DISCUSSION: This case illustrates the difficulty of diagnosing PCA in young people because of its atypical cognitive involvement. Visual impairment is significant for diagnosis, but language deficits can be preceded or accompany them. Patients can be mistaken as depressed and therefore treated with antidepressants, that could confuse the clinical picture or make it worse. As in all phenotypes of AD neuropsychiatric symptoms are often present together with cognitive deficits.

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A NEW ORGANIZATION MODEL IN LOCAL HEALTH CARE FOR PATIENTS WITH DEMENTIA: THE CASE MANAGEMENT

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INTRODUCTION: Among the main reasons of morbidity and death in old people frailty is a condition related to a cut of physiological reserves, characterized by a weakness in response to stress factors with an increased risk of disability, comorbidities, hospitalization and death. To identify people at risk of frailty several methods of rating have been developed. The most mentioned are focused on physical frailty or based on the accumulation of deficits in physical, cognitive and functional domains. This work gives a complex vision of the history, the definition and rating of the frailty in old persons, with the aim to set up a nursing of frailty.

METHODS: In function of its own specific organizational the case management program includes an integrated management

between hospital and regional local services that is managed by nurses. It is an approach for the assistance to the chronic patient through which the nurse of the frailty takes in charge the patients at risk of disability to control them during the time, by using the methodology of the Multidimensional Geriatric Assessment and Management. The new organization model in local health care for patients with dementia has been developed, by including the general practitioner, specialist doctors, the nurse of frailty and the patient (and/or its caregiver) in a multi-professional project that works according to the Chronic Care Model.

CONCLUSIONS: The assistance of frail patients is a field of particular interest and engagement for nursing, in agreement with the politics of all European countries and the WHO. It should guarantee that health professionals increase their knowledge and abilities to promote the healthcare; in geriatric field the role of the frailty nurse may have an increasing importance.

PREVENTION OF DISABILITY IN DAILY LIVING ACTIVITIES IN POST COVID 19 ELDERLY PATIENTS

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OBJECTIVES: The study evaluates the effects of combined drug treatment and occupational therapy in order to improve the Activities of Daily Living (ADL) and the Instrumental Activities of Daily Living (IADL) in post COVID 19 elderly subjects.

METHODS: 7 post COVID 19 elderly people (M 3, F 44, mean age 82 + 6) hosted in an Extended Care Unit were included in the study. The design of the study included tests performed before and after follow-up such as: 1) Mental State Examination (MMSE); 2) Geriatric Depression Scale (GDS); 3) Activities of Daily Living (ADL);4) Instrumental Activities of Daily Living (IADL). In the investigated subjects we detetected: 1) Mean MMSE score was 23.7+ 8.3; 2) Mean GDS score was 13+1.8. In the group 3 subjects showed an ADL score <3, 6 had IADL <4. All subjects were treated pharmacologically aimed at comorbidity. Specific nursing care focused on personal care (hygiene and clothing): mild help needed, assistance in every phase of the activity; self-assurance (physical and/or psychological) and risk of fall due to low vision and walking difficulty; movement (deambulation and transfer), self-sufficient transfers and supervised walking outside one's room. To improve ADL and IADL a 6-day-per-week occupational therapy programme was introduced. This focused on teaching patients how to compensate and adapt either physically and socially. Presence or absence of cooperation in ADL is strongly linked to the depression level. This depression is also strongly linked to the evaluation of life quality.

RESULTS: Before and after a 2-month follow-up we detected: 1) GDS score 13+1.8 *vs.* score 8+1.7 ($p<0.01$); 2) ADL 3/6 score *vs.* 5/6 score ($p<0.01$); 3) IADL 4/8 score *vs.* 6/8 score ($p<0.01$).

CONCLUSIONS: The combined drug treatment and occupational therapy programme applied in post COVID 19 patients showed a reduction of the depression level and an improvement in the life quality level combined to a self-sufficient ability in instrumental activities of daily living (IADL) and activities of daily living.

COVID-19 AND DELIRIUM: AN UNKNOWN NEGATIVE PROGNOSTIC FACTOR?

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BACKGROUND: The experience acquired during SARS-COV-2 pandemic represented a clinical challenge for medical doctors and for the whole category of healthcare professionals. The heterogeneous clinical manifestations and the poorly understood pathophysiology of the disease posed a threat to the current health system, especially for the clinical management of the most fragile age groups. In the elderly, hyper- and/or hypo-kinetic delirium represented one of the main SARS-CoV-2 symptoms. The aim of our study is to define the impact of delirium in elderly patients affected by Covid-19 infection: do patients who develop delirum have higher mortality? Is the occurrence of delirium related to the duration of the ventilation therapy and the hospital stay? Among drugs used for Covid-19 infection, is any of them associated with higher risk for delirium? The examined variables will be principally related to the therapy (use of neuroleptics, antidepressants, AcheIs or BDZ, Azithromycin, corticosteroids, immunomodulators), to possible associated or trigger factors of delirium (PN, NIV, ventilation, etc.); afterwards we will analyse principal otucomes as mortality due to all causes, ventilator therapy duration, overall recovery duration, ICU recovery duration, and eventual side events.

Aim of the study. To analyse clinical and epidemiologic characteristics in hospitalized elderly patients with delirium and confirmed Sars-CoV-2 infection. Study population: retrospective study including hospitalized patients with confirmed Sars-CoV-2 infection (positive naso-pharyngeal swab) and aged >75 years old.

CLINICAL FEATURES IN HOSPITALIZED GERIATRIC PATIENTS WITH COVID-19 INFECTION AND DELIRIUM

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INTRODUCTION: The experience acquired during SARS-COV-2 pandemic represented a clinical challenge for medical doctors and for the whole category of healthcare professionals. The heterogeneous clinical manifestations and the poorly understood pathophysiology of the disease posed a threat to the current health system, especially for the clinical management of the most fragile age groups. In the elderly, hyper- and/or hypo-kinetic delirium represented one of the main SARS-CoV-2 symptoms. To the best of our knowledge, current studies analysed the prevalence and pathophysiology of delirium during SARS-CoV-2 of an adult population in the ICU setting. In our experience, the study of delirium in the geriatric population could be relevant not only for the intensive care setting but also for hospital wards and daily practice. The aim of our study is to identify risk and trigger factors for delirium as well as, to define the best clinical strategies to manage SARS-CoV-2 disease in the elderly.

Aim of the study. To analyse clinical and epidemiologic characteristics in hospitalized elderly patients with delirium and confirmed Sars-CoV-2 infection.

MATERIALS AND METHODS: Study population: retrospective study including hospitalized patients with confirmed Sars-CoV-2 infection (positive naso-pharyngeal swab) and aged >75 years old. Analysed variables: Comorbidities, home therapy, place of origin, hospitalization in the previous months, dementia diagnosis before the hospitalisation, clinical manifestation severity: admission SOFA score, vital signs, laboratory exams (WBC, N/L,CRP, PCT, BNP, D-dimer), ABG test (pH, PaO2, PCO2, P/F), thorax Rx, used therapy (highlighting neuroleptics, antidepressants, AcheIs or BDZs, Azithromycin, Corticosteroids, immunodepressants), other factors as recovery setting, PN, NIV, ventilation, ect. Study outcomes: Primary Outcomes: mortality due to all causes, overall recovery duration Secondary Outcomes:

Intensive care permanence, ventilation therapy, other eventual side events.

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END OF LIFE CARE IN ACUTE GERIATRIC UNITS

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The hospital provides beds for taking in charge and treating acute diseases or chronic diseases exacerbation, with a high-level assistance setting for a short time. The management of the end of life is still largely centered on the hospital today. ISTAT data from 2015 described, in Italy, the hospital as a place where people die in 42% of cases. In Veneto up to 60% of elderly people die in an acute ward. Unfortunately hospital is not a suitable place for the end of life for many reasons: the available space hardly guarantees privacy, the environmental comfort that a dying person deserves is rarely existent and the health personnel often does not have the adequate knowledge and skills for accompanying the patient at the end of life.There are five main environmental factors that improve the quality of life and well-being of dying people: social interaction, positive distractions, privacy, personalization and optimization of the environment (1)To improve nursing and medical care, ensure evidence-based interventions, on an integrated and standardized care model, we developed a protocol for the accompainment of the elderly patient at the end of life and for the family support.The application of this protocol starts from the recognition of the parameters indicating the terminal phase. Then the team shares the decision to suspend active causative treatment and to start the end of life care, centered on relief of symptoms and reduction of dyscomfort. We therefore set up a dedicated single bed room in order to welcome the patient and the caregivers and manage and monitor symptoms and therapy with objective tools and scales (symptoms, signs, pain quantification, effectiveness of sedation). Should critical decision-making moments occur, a meeting of the care team must urgently be requested to assess the situation and propose a solution.To facilitate the application of this protocol, a checklist has been developed that summarizes the various steps, furthermore dedicated records for clinical data collection and specific informed consent have been prepared.

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PREVENTING DELIRIUM IN ACUTE STROKE: LESSONS FROM THE COMPREHENSIVE GERIATRIC APPROACH

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INTRODUCTION: The prevalence of delirium in patients after stroke is estimated to average 26% [1]. Delirium is associated with negative outcomes [2] The etiology of delirium is complex, and current theories explain its development by the interaction of several internal or external risk factors [3]. Despite an increasing knowledge in detection and management of delirium in other clinical conditions, prevention of delirium after stroke has not properly investigated.

METHODS: We reported a case report about the prevention of delirium in acute stroke in a 90 ys old woman admitted to the Geriatric ward of the AUSL-IRCCS Santa Maria Nuova (Reggio Emilia). At the baseline, this patient showed a high-risk profile to develop delirium (age, dehydration, 8 hours in emergency department isolated from their caregiver, Pcr >0.4, cognitive decline, stroke, language impairment). At admission, she showed respiratory impairment due to acute bronchitis (after the episode of vomiting in ER, no demonstration at the X-ray of aspiration pneumonia), initial psychomotor agitation (reported from emergency diary). Pharmacological assessment at admission showed polytherapy (PPI, valproic acid, ace inhibitors, cardioaspirin, antiacid, benzodiazepines, statin, diuretic). First of all, we decided to not apply the urinary catheter (UC), to start with enteral nutrition and to do a pharmacological describing especially regarding therapy usually used in non-embolic acute stroke (statin). We also stopped the valproic acid. The first night our patient was in a single room because of rules containing intra-hospital COVID 19 transmission in our ward. She slept well and not behavioral disorders occurred but the second day when she moved in a double room and indwelling urinary catheter was applied (urinary retention of 500 ml) our patient developed delirium. Fortunately, she self-removed UC and we started with parenteral nutritional support and rehabilitation (physical and logopedic therapy). For the entire length of stay, despite her profile at high risk to develop prolonged delirium, after a prompt UC removing and environmental adequacy, our patient was discharged after 9 days in clinical stability and with acceptable cognitive performance towards long-term facility to complete the rehabilitation program. At the discharge, the therapeutic plan relied just on 3 drugs.

DISCUSSION: hospitalized elderly patients are more at risk to develop delirium with negative clinical outcomes. Studies on delirium in stroke patients are scarce [4]. Despite advances in geriatric science, currently, to the best of our knowledge, some preventing anti-delirogenic actions are not performed in clinical routine. We reported a case from an elderly woman with high risk to develop delirium. By combining geriatric lessons (comprehensive approach in a timely way) In particular, bladder care, nutritional support and deprescribing showed to limit the onset of delirium in a patient at high risk. Indwelling urinary catheters have been reported to be uncomfortable, with many patients preferring alternative methods of bladder care, however, in clinical routine, the application of UC follows clinical criteria and not personalized person-centered considerations.

CONCLUSIONS: Preventing delirium in acute stroke is important. Geriatric patients need to be managed in a combined and timely way. Despite standardized flowcharts in the management of delirium, data about preventing delirium after stroke are not still available, a part expert opinions. Focus on the anti-delirogenic, person-centered deprescribing, catheterization policy, and nutritional support need to be investigated extensively for further recommendations.

MULTIDIMENSIONAL PROGNOSTIC INDEX PREDICTS IN-HOSPITAL MORTALITY IN OLDER ADULTS WITH ACUTE RESPIRATORY FAILURE

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BACKGROUND: Acute respiratory failure (ARF) is a very common complication among hospitalized older adults with pulmonary diseases. Its incidence dramatically increases with age and presence of comorbidities. Non-invasive ventilation (NIV) may avoid admission to intensive care units, intubation and their related complication. Besides the need of NIV, comprehensive geriatric assessment (CGA) could have a role in defining the short-term prognosis of older adults with ARF.Aim. In this study we aimed to investigate whether the Multidimensional Prognostic Index (MPI), a CGA-based assessment tool of patients' prognosis, may help to identifying older adults with ARF more at risk of in-hospital mortality.

METHODS: This is a prospective observational study which consecutively enrolled patients older than 70 years, admitted to the Acute Geriatric Unit of Galliera Hospital (Genoa, Italy) for pneumonia or exacerbation of chronic obstructive pulmonary disease (COPD) whit ARF (PaO2/FiO2 ratio <300). A standardized CGA was used to calculate the MPI at admission. Multivariate regression analysis was conducted to test if MPI score could predict in-hospital mortality. Receiver operator curve (ROC) analysis was used to identify the best MPI cut-off to predict mortality in this population.

RESULTS: We enrolled 232 patients (47% females, mean age 88.2±5.9 years). Mean MPI at admission was 0.76±0.16). 61 patients (26.3%) received NIV during hospitalization and did not significantly differ for age, gender and MPI score compared to those who did not receive NIV. Median length of stay was 13 days (IQR: 10) and mortality rate was 33.7%. In multivariable analysis, we found that the only significant predictor of in-hospital death in this population was the MPI at admission (?=6.33, p<0.0001), such that higher MPI scores predicted worst survival independently by age, gender and NIV use. The best MPI cut-off predicting in-hospital mortality was 0.78 (HR: 3.83, 95% CI: 2.04-7.18).

CONCLUSIONS: MPI at admission might be a useful tool to early detect patients more at risk of in-hospital death among older adults with ARF due to pulmonary disease.

SARS-COV-2 INFECTION AND COINFECTIONS IN GERIATRIC PATIENTS: IDENTIKIT OF MICRORGANISMS INVOLVED AND ANTIBIOTIC RESISTANCE

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BACKGROUND: Viral infections can frequently occur with bacterial or fungal coinfections, possibly determining an increase in mortality rates and in-hospital length of stay. Coinfection rates in Influenza virus respiratory disease count up to 35% of cases and are mainly sustained by Streptococcus pneumoniae, Haemophilus influenzae and Staphylococcus aureus spp. Coinfection-related pneumonia is considered one of the most lethal complications during Influenza pandemics in 1918, 1957, 1968 and 2009.Chinese studies reported high rates of coinfections during the SARS-CoV-2 pandemics, especially in severe and critical forms. Elderly patients are at particular risk for infectious complications of Covid-19, as old age and high comorbidity are ascertained adverse prognostic factors. Our study aims to describe geriatric patients with Covid-19 and coinfections, especially focusing on predisposing factors as copathologies, HIV, medications, patients' origin (community-dwelling *vs.* long term care facility), previous hospitalization (<6 months), vaccinations in 2019, previous antibiotic treatments (<30 days). We will describe clinical severity at presentation, microbiological findings (blood and urine coltures, nose swabs positivity other than SARS-CoV-2, antibiotic resistance), therapy (azythromicine, costicosteroids, immunosuppressors), NIV, IVN, ventilation etc.

OBJECTIVES: retrospective study on clinical reports of elderly patients with Covid-19. We aim to describe microrganisms responsible for viral, bacterial or fungal coinfections in patients with SARS-CoV-2 infection and their antibiotic resistance patterns.

HOME BLOOD TRANSFUSION – ASL ROMA 3

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INTRODUCTION: The transfusion of blood or of its components is currently a routine procedure in the hospital regulated by the guidelines developed by the National Commission for the Blood Transfusion Service (Law 107 of 4 May 1990). From a legislative point of view, the Italian blood transfusion system is determined by: directives of the European Union (directives 2002/98CE, 2005/61/EC); national legislation (law 219 of 21 October 2005, Legislative Decrees n. 191/2005, 207/2007, 208/2007 and 261/2007); regional legislation and agreements made by the Permanent Conference for relations between the State, Regions and autonomous Provinces. The difficulty of carrying out this procedure at the patient's home is obvious, but it is necessary to overcome these difficulties given the increased demand due to the increasing number of non-self-sufficient chronic patients with diseases that require blood transfusions. Although the literature data related to home blood transfusions are quite limited, the results show that such a procedure can be considered an effective alternative to hospitalization with a significant cost reduction and mitigation of inconveniences for patients with hematological disorders, cancer, etc. Due to various problems related to their pathologies such patients are limited in access to blood transfusion centers and a hospitalization only for a blood transfusion would be inappropriate for them.

METHODS: For this reason CAD XII Municipio ASL ROMA 3 (Procedure ASL3 POS 248) drafted the official procedure for transfusion therapy with blood and/or its components, in order to comply with DCA n. 47 of 18/03/2020 adopted by the Lazio Region. The various steps of the procedure for non-transportable home care patients with Hb <7 g/dl are described below. A general practitioner/pediatrician sends two requests for hematological and blood group visits ABO RH with cross-compatibility tests and indirect Coombs tests. The duly completed requests are delivered to the competent immuno-transfusion service for the collection of the test tubes to be used at the patient's home upon signature of the informed consent. It should be pointed out that the blood transfusion is a medical procedure. The appointee collects the bags and the rest of the necessary material at the relevant center. During the procedure patients may develop an adverse reaction which can be of various types: febrile non-haemolytic, allergic, delayed haemolytic, acute haemolytic and anaphylactic. If an adverse reaction is suspected, the blood transfusion should be interrupted immediately; the intravenous line must be maintained with physiological solution and the patient's condition must be carefully and constantly assessed. The Blood Transfusion Service should be notified by sending the unit that caused a reaction and the transfusion set. Materials and medi-

cines to be kept at home are listed in the table. A well-organized home service must be able to manage a potentially stressful situation for both a patient and his family without having to resort to a hospital / day hospital. It makes possible not only an improvement in the quality of life, but also a reduction in the costs of public health management.

CONCLUSIONS: We consider this experience important for a better integration between hospital and territory.

FRAIL ELDERLY AND DYSPHAGIA: SIMPLE TOOL FOR HEALTHCARE PROFESSIONALS AND CAREGIVERS

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INTRODUCTION: Swallowing or dysphagia problems are common in frail older people and are associated with significant negative outcomes, including weight loss, malnutrition, dehydration, aspiration pneumonia, reduced life expectancy, reduced quality of life and increased load of the caregiver. Especially in patients with stroke and dementia, dysphagia is highly associated with reduced survival and can serve as a starting point for exploring goals of care and values towards the end of life. There is limited evidence supporting the early assessment and treatment of dysphagia in the elderly. A study conducted by Chadwick at al. in 2006 researched what were the main obstacles that prevented caregivers from sticking to the recommendations provided in managing dysphagia. This study has shown that healthcare professionals struggle to find the right consistency and identify the most correct posture to administer meals for dysphagia subjects. From this it emerged how important it is to train those who care for these patients. The aim of this work is to identify valid food and postural recommendations in order to prevent the above complications and to design a paper brochure (simple tool).

MATERIALS AND METHODS: A review of the national and international literature on the guidelines and the Regione Piemonte Diagnostic Therapeutic Assistive Paths for dysphagia (PDTA) was conducted in the field of dysphagia, its complications and the related nursing role. From the bibliographic research, 475 articles were identified and after careful analysis, 9 were relevant with the aim of the work and therefore included in the review. Once the research results were obtained, an information booklet was designed for healthcare professionals and caregivers.

RESULTS: The nine identified studies provided extensive information for the treatment of oropharyngeal dysphagia in the elderly. The goals of dysphagia management vary according to the clinical condition of each patient. The consistency of food and liquids has been taken into consideration which, if respectively of homogeneous consistency or thickened, reduce the risk of aspiration. Liquids with a consistency similar to syrup or honey are the safest. Proper oral hygiene is also important to reduce the risk of pneumonia ab ingestis. During the meal, the posture of the dysphagic subject must be seated with the back erect or at 45° if bedridden. Research results both in the field and in national and international literature suggest that additional training and monitoring is needed to ensure that healthcare professionals and caregivers are aware of their role and responsibility in promoting safe oral intake for adults with dysphagia. This tool allows simple and clear indications to be provided to healthcare professionals for patients with dysphagia.

CONCLUSIONS: The caregivers who assist people with dysphagia report difficulties in achieving the correct and safe consistency of food and drinks and have reported obstacles in providing meals due to the posture of the dysphagia subject. Further training and monitoring is needed to ensure that caregivers are aware of their role in promoting safe oral nutrition, as people with dysphagia often have a limited ability to follow recommendations for safe swallowing, *e.g.* due to cognitive impairment.The paper form was chosen because in the literature it is considered a valid tool to promote compliance. In fact, providing written material to patients and caregivers is a useful support element within an educational intervention to avoid the risk of being easily forgotten. The booklet is a tool that caregivers can take home and consult at any time. The information is provided in a clear and simple way, in order to respond promptly to any difficulty. The brochure has been translated into English, Romanian and Spanish with the aim of reaching the largest number of caregivers and healthcare professionals as the brochure itself has been designed as a support tool for future educational interventions. A copy of the paper tools in Italian, English, Romanian and Spanish will be attached to the poster displayed.Key words: oropharyngeal dysphagia, frail elderly, prevention, modified diet, dietary and postural recommendations, complications, caregivers, training, paper tool.

SLEEP DISORDERS AND VALVULOPATHIES IN ELDERLY SUBJECTS

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BACKGROUND: Valvulopathies describe any acquired or congenital disease affecting one or more of the four cardiac valves. Many studies showed that patients with valvulopathy suffered from Sleep Apnea Syndrome (SAS)1, a respiratory sleep disorder characterized by repetitive episodes of airfow reduction (hypopnea) or cessation (apnea), with associated hypoxemia. Apneas can be obstructive (due to upper airway collapse), central (characterized by a lack of drive to breathe during sleep) and mixed. The presence and severity of sleep apnea syndrome is defined by AHI (apnea-hypopnea index), that is the number of apneas and hypopneas per hour of sleep. The purpose of this study was to evaluate, through a cross-sectional analysis, conducted on a large cohort of geriatric patients, the association between SAS and valvulopathies.

MATERIALS AND METHODS: We enrolled 191 patients (133 men and 58 women), mean age 72,5±5,1 years, admitted to "Sleep Disorders" laboratory of the Geriatrics Department of "Mater Domini" University Hospital of Catanzaro. Exclusion criteria were presence of: heart failure with reduced or mid-range ejection fraction, ischemic heart disease, severe renal and hepatic insufficiency, respiratory failure and moderate-severe anemia. Patients were given "Epworth Sleepiness Scale" questionnaire to evaluate daytime sleepiness. Subsequently, they underwent clinical examination, laboratory testing, cardiorespiratory polygraphy, resting electrocardiogram, echocardiogram. The population was divided into four groups in relation to AHI index (first group with AHI <5, normal; second group with 5<AHI<15, mild SAS; third group with 15<AHI<30, moderate SAS; fourth group with AHI?30, severe SAS). Anthropometric, clinical, biological differences among the groups were compared by one-way analysis of variance (ANOVA) for continuous variables and with sequential post-hoc Bonferroni analysis. ?2 test was used for nominal data. Differences were considered significant for $p < 0.05$.

RESULTS: No statistically significant differences in age, systolic blood pressure (SBP), diastolic blood pressure (DBP), pulse pressure (PP), hearth rate (HR), total cholesterol, LDL-colesterol, glomerular filtrate, fasting blood glucose, fasting insulin and HOMA index were observed among the groups. In contrast, patients with higher AHI values had significantly higher Body Mass Index, BMI ($p<0.023$), abdominal circumference, AC

(<0.035). uric acid (p<0.036), high sensitivity C reactive protein (hs-CRP) and lower values of HDL-cholesterol. Regard to echocardiographic parameters, subjects with severe AHI had a statistically significant increase in indexed left ventricular mass (ILVM) (p<0.017) and left ventricle end-diastolic volume indexed to body surface area (EDVLV/BSA) (p<0.015). We observed a statistically significant increase in prevalence of valvulophaties (p=0.014) in relation to AHI increase in overall population, but no significant differences were observed in prevalence of specific valvulopathies. We divided population with SAS (176 patients, 92.1%) into two groups based on presence or absence of moderate-severe valvulophaty. Therefore, we characterized apnea type among the groups: the percentage of obstructive-type apneas was significantly higher (p<0.0001) in patients without valvulopathies. On the contrary, the percentage of central-type apneas (p=0.0009) was significantly higher in patients with valvulopathy.

CONCLUSIONS: This study demonstrates a worsening of cardiovascular risk factors and an increase in prevalence of cardiac valvulopathies in elderly subjects with SAS. Patients with valvulopathies have a higher percentage of central apnea than obstructive ones. Presence of valvulopathies rapresents the second determinant, after BMI, of AHI variation. The use of non invasive ventilation in patients with SAS and valvulophaties remains an issue: ventilation therapy is absolutely indicated for obstructive apnea forms but there is no indication for central forms.

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GERIATRICS AND TERRITORY

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We are witnessing "a gray revolution that rests its foundations on the aging of the population": from the prevalence of infectious / deficient diseases to the preponderance of cornic degenerative diseases; today to health emergency situations that increasingly concern the elderly and that confuse leading to the formulation of questions that do not always have clear and comforting answers with respect to intervention strategies aimed at ensuring that one can concretely lead from passive / active aging to conscious aging. Having acknowledged that the assessment of the frailty of the elderly, understood as a dynamic state that affects the person, does not have a certification character but a meaning of prevention and promotion of the quality of life as well as identification of the need for a consequential individualized care plan , it is advisable to change the paradigm for the approach to the person going beyond the diagnosis of the acute event and to refer increasingly to a multidimensional assessment with global intervention on man and the environment with the aim of maintaining self-sufficiency in the face of the cumulative decline of multiple physiological systems that cause vulnerability and pluirpathologies. Every professional in the medical field can certainly operate in this sense but distinctive skills such as those of a Geriatrician are urgently needed, which could give added value to the management of the person requesting a service. Some specific studies carried out in the Agrigento area for some years to date concerning the awareness of the needs of the citizen and first of all of the elderly, of the Caregiver, of professionals working in public / private institutions / home care, have highlighted both training gaps from part of the professionals is problems linked to a culture of the citizen that is affected by convictions, beliefs, stereotypes, prejudices linked to a cultural stigma that invalidates the real objective assessment of the person within the social / health / territorial framework. The results highlighted an inadequate knowledge on the part of citizens of the services offered by the Social Health System as well as being unaware of the path to take in order to use them. A training plan for professionals was formulated with reference to the needs that emerged in order to establish a codified system of territorial assistance imbued with those skills such as: communication skills, leadership, negotiation, Problem Solving, Decision Making as well as competence essential as that of Cooperation. Cooperate in compliance with the specificity of skills in the logic of professional horizontality and not of verticalism. Cooperation requires integration, interdependence of services and one-to-one communication of all interested professionals. The results obtained from the studies will be presented with graphs in terms of percentage with respect to the reference sample taken into consideration. The limits of these studies are related to the non-inferability linked to the small number of the sample but preparatory to other studies to be implemented contextualizing them to the historical health moment.

KNOWLEDGE, SKILLS, EMOTIONS, DECISION-MAKING OF THE HEALTH PROFESSIONALS IN NURSING HOME

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INTRODUCTION: At a time when "the belief that change is the only permanent thing and that uncertainty is the only certainty", it would seem difficult to carry on the concept of "health promotion. The transition from "knowing how to do" to "knowing how to do competent integrated" is urgent. for the management of "complex-complicated welfare" in a logic of integration/professional cooperation within a flexible organization with the person at the center in its multidimensionality and fragility that can also ethically answer questions such as: "Who", "What", "When", "How", "Why", "Where", "For Whom", "With Who within a homogeneous system, well-structured-"talking", capable of scaling out the emerging problems. A "thoughtful competent professional" is needed to make decisions that turn the "impossible" "into-possible". Although variables are sought, statistics are calculated, behaviours are labelled, "uncertainty" reigns supreme " and today, where COVID-19 has had an enzyme function for a process of modernization, "Training" is necessary as a key element for an adequate decision-making by the professional that is not the result of cultural heritage. A study was conducted in this way within a health care facility GOALS of the study verifies the level of knowledge-awareness of practitioners about the influence of beliefs, beliefs, emotions on rational/emotional decision-making and the possession of cross-skills within RSA organizations as well as knowledge of the organization and their and others' professional profile.

SUBJECTS: 41 operators (male women) included in various capacities in the RSA Health Care Facility, heterogeneous by age, social background as well as for different professional profile, training, ownership and competence. Average age 40 years.

TOOLS AND PROCEDURES: Meetings were held in the number of 5 intervals from 5 to 10 days for a duration of each match of 45-60 minutes for a total of three months.1 Brainstorming meeting aimed at collecting non-verbal data through observation. From the 2nd to the 4th meeting I use ad hoc mental maps for recording the non-verbal dimension through shared transcription criteria such as: NC- notes-small explanations; Hesitations, significant pauses, MA and high volume; I is low volume; Descending-ascending intonation. The numerical value shown near each criterion gives the sense of reaction to each input during Breinstorming and arises from the observation of the expression of the face as well as from the postureNon-verbal dimension summary mental map The 5th meeting, the admin-

istration of a questionnaire consisting of 16 questions divided into three Sections: 1st cross-section of cross-skills divided into two areas: Beliefs-Beliefs Area, questions 1 to 6; Area Influence Emotions, Prejudices, Beliefs, Rational Decision-Making (questions 7-11); 2nd Training Area Section concerning the knowledge of one's and others' professional profile and the organizational structure of the membership structure, questions from 12 to 14; 3rd Section Skills Area, Skills, Question n 16; free annotation space (n 15). The response scale is highlighted with three items: YES, NO, OTHER. The third section with respect to the total population in relation to question n 16: "Most important Skill Competence", highlights being the most important "working in equipe", followed by "reading of need" as well as "Empathy"

DISCUSSION: The results highlight a lack of training in all areas investigated. "Working as a team" is the most important skill. The training area is unresponsive to the real as 70.7% say they know their professional profile and 97.6% the profile of other operators but in fact nothing in the description of it. Only 51% say they know the organisational structure but the specific responses to the content responding appear to contradict this study is not inferable and is preparatory to other studies after specific training plan that has been formulated in accordance with the training needs found.

PREDICTIVE VALUE OF SUPINE HYPERTENSION FOR ALL-CAUSE MORTALITY AND CARDIOVASCULAR EVENTS IN PATIENTS WITH SUSPECTED DYSAUTONOMIA

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BACKGROUND AND AIMS: Autonomic dysfunction frequently presents with orthostatic hypotension (OH) and supine hypertension (SH). OH is defined by a systolic blood pressure (SBP) drop >20 mmHg and/or a diastolic BP (DBP) drop >90 mmHg after at least 5 min of supine rest. Previous studies suggest an increased risk of cardiovascular (CV) events in patients with neurodegenerative diseases and SH. Yet, the risk increase may be mainly related to the underlying disease rather than BP regulation impairment. Therefore, the prognostic value of SH remains unclear. The present study aimed to assess the predictive value of SH for all-cause mortality and CV events in a sample of patients with suspected dysautonomia.

METHODS: we performed a retrospective longitudinal analysis of data from patients with suspected dysautonomia evaluated at the Syncope Unit of Careggi Hospital, Florence, Italy, between March 2014 and June 2019, and undergoing a >6 months follow-up. SH was diagnosed using beat-to-beat BP monitoring. OH was assessed during active standing. All-cause mortality and the following CV were investigate in March 2020: myocardial infarction (MI), stroke, acute heart failure (aHF), major bleeding. Data were collected from clinical records and patients interview. The predictive role of SH was investigated using multivariate logistic regression adjusted for age, sex, CV risk factors and other clinical variables of interest among those associated with the outcome in univariate analysis.

RESULTS: the study sample included 113 patients (mean age 68, 58% male), showing a 50% (n=57) prevalence of SH and a 75% (n=85) prevalence of OH. At baseline mean supine SBP and DBP were 138.81±23.61 and 77.2 ±12.78 mmHg, respectively. After a mean follow-up of 3 years, we observed a 11.5% mortality rate (n=13). Seven patients (6.2%) had MI, 3 (2.7%) had aHF, 1 (0.9%) had a stroke. No major bleedings were reported. SH was not associated with an increased risk of all-cause mortality (50% *vs.* 54%, p=0.794) or CV events (43% in MI *vs.* 51%, p=0.695 and 100% aHF *vs.* 49%, p=0.079) both in univariate and multivariate analysis. Supine SBP was significantly associated with an increased risk of aHF (171 mmHg for sHF *vs.* 138 mmHg for others, p=0.018), but the association was not confirmed after adjustment for confounders (OR 1.064, 95% CI 1-1.133). OH was a predictor of MI (OR 9.17, CI 1.06-79.35) and lower orthostatic SBP was independently associated with an increased risk of all-cause mortality (OR 0.96, C.I. 0.93-0.98, for each mmHg increase of SBP at 1 min of standing; OR 0.97, C.I. 0.94-0.99, for each mmHg increase of SBP at 3 min of standing). Conversely, higher orthostatic SBP was associated with an increased risk of aHF (OR 1.101, 95% C.I. 1.004-1.208 for each mmHg increase of SBP at 1 min of standing; OR 1.135, 95% C.I. 1.014-1.269, for each mmHg increase of SBP at 3 min of standing).

CONCLUSIONS: SH does not carry an increased risk of mortality and CV events. Orthostatic SBP seems to have a greater prognostic impact than supine SBP, with lower values being associated with an increased risk of MI and all-cause mortality and higher values being predictive of aHF. These data do not support BP lowering in patients with SH. Antihypertensive treatment may rather exacerbate OH, thus potentially increasing the risk of MI and mortality.

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POLYMYALGIA RHEUMATICA AND PMR-LIKE SYNDROMES FOLLOWING IMMUNE CHECKPOINT INHIBITOR THERAPY IN OLDER PATIENTS WITH CANCER: MAIN THEMES EMERGING FROM A SYSTEMATIC REVIEW AND A NARRATIVE SYNTHESIS OF PUBLISHED LITERATURE

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BACKGROUND: Polymyalgia rheumatica (PMR) is estimated to be older adults' most common inflammatory rheumatic disease. A wide range of rheumatologic immune related adverse events (IRAEs) have been described in cancer patients, following therapy with immune checkpoint inhibitors (ICIs), and PMR is one of the most frequent.

MATERIALS AND METHODS: We conducted a systematic review in two main bibliographic databases (EMBASE and MEDLINE, OVID interface) based on PRISMA guidelines, using the following main search terms: polymyalgia rheumatica, rheumatic syndromes, checkpoint inhibitors therapy, polymyalgia reumatica-like syndromes, immunotheraphy, checkpoint inhibitor-associated polymyalgia rheumatica, anti-PD1, anti-PDL1, anti-PD1 antibody, anti-CTLA4. A narrative synthesis of published literature was added.

RESULTS: the initial search yielded 2059 papers, of which 1778 articles were excluded based on title and abstract reviews. A total of 281 articles underwent a full-length review; 207 were the full-text articles assessed for eligibility and 193 articles were excluded (reviews and comments = 58; conference abstracts = 39; papers containing similar or identical data presented by the same group of researchers in several articles = 23; studies having poor quality = 5; no outcome of interest = 67;). Data were extracted from 7 studies and 8 case-reports, involving a total of 54 subjects. Several important themes emerged from our review, so that the relationship between PMR and ICIs therapy was not as clear as suggested by some researchers. All studies had small size and were

not randomized; only one retrospective study used validated criteria for PMR; in most reports, IRAEs was assessed only by clinical judgment; in some cases the diagnosis of PMR was made in non-rheumatologic settings. Finally, the lack of validated scales for adverse drug reaction (ADR) assessment was identified as a key critical point. When, using reported data, we were able to apply the Naranjo scale to patients described in all our search findings, patients' scale score were almost never higher than four.

CONCLUSIONS: Multicenter and large-sized studies should be encouraged, where diagnostic or classification criteria are stated, and where clinical judgment is always linked to validated assessment scales. To date, whether IRAEs-PMR is identical to the idiopathic form of the disease or rather a new, independent disease entity is still a conundrum.

COVID-19 AS UNEXPECTED CHALLENGE FOR ONCO-MPI. A CASE REPORT

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INTRODUCTION: The current practice guidelines of the major international societies of oncology suggest a geriatric multidimensional approach to older patients with cancer in order to estimate their life expectancy irrespective of their tumor and to explore their functional reserves and the risk of treatment complications. The Onco-MPI is a validated and practical multidimensional tool that can help the decision between standard/adjusted anticancer treatment or best supportive care. Since 2019 in the Health Trust of Bologna, Italy, all elderly patients with head and neck cancer have been assessed according to the Onco-MPI.

CASE REPORT. We report a 92 ys-old patient who underwent nose and sinus endoscopic surgery for an Ethmoidal Intestinal Type Adenocarcinoma (ITAC) for the first time in 2014. In January 2020 a follow-up MRI showed a posterior ethmoidal recurrence which was confirmed after biopsy.The patient was on ARBI for mild Hypertension and low dose aspirin, betablocker, and statin for an asymptomatic chronic Coronary Artery Disease (CAD) following a silent Myocardial Infarction about 30 ys before. Hormonal antiandrogenic therapy has been administered since prostatic cancer surgery about 20 ys before. A PPI was given for gastroprotection. He had quitted smoking 25 years ago and had mild COPD requiring no treatment. On February 25th he was assessed at the geriatric clinic as reported . BMI (Height=172 cm Weight=93 kg) = 30,37; ADL 6/6; IADL 6/8; ECOG 0/6; No. CIRS-SI= 2; CANCER STAGE IIMMSE = 22/30; No. of drugs = 6. Presence of a caregiver=Yes. The Onco-MPI global score of 0,46 showed a low risk of 1-year mortality. The surgery scheduled in mid March was postponed due to the SARS-Coronavirus emergency. At the end of March after two weeks of fever treated at home with antibiotic the patient developed fatigue and minimal exertional dyspnea. On April 1st he was referred to A&E were the nasal swab was positive to SARS-Cov-2. The pulmonary HRCT showed increased density and interstitial thickening with ground glass appearance in both the superior and inferior lobes of the right lung and in the inferior lobe of the left lung compatible with COVID-19 related pneumonia. Blood sample showed lymphopenia (1.24*10^9/L) and mild increase of CRP (2.03 mg/dL). ABG showed mild hypoxia (O2 76 mmHg, pCO2 42 mmHg – sat O2 96% - P/F 361). The patient was admitted to a Covid Ward where, according to the recommendation active at that time, he received hydroxychloroquine, low molecular weight heparin, ceftriaxone, and low oxygen flows. His clinical condition rapidly improved and he was discharged home on April the 20th . At the beginning of May the patient repeated a CT scan of the head which showed a progression of the neoplasm. On May 28th he underwent spheno-ethmoidectomy with bilateral frontal sinusectomy and median meatotomy with the goal of gross total removal. According to the clinical and cognitive assessment the ceiling of the ethmoid bone and the dura were not removed. It could have led to meningeal infection and/or rino-liquoral fistula and would have required some days of bed rest and an admission to ICU with high risk of post surgical delirium. On the very first day after surgery the nasal packing was removed. After 3 hours of clinical observation the patient was able to phone his relatives and to personally organize his return home. Neither clinical problems nor recurrence were recorded after 10 and 30 days of follow-up.

DISCUSSION: Onco-MPI score is stratified in three grades of severity (low risk: 0.0–0.46, medium risk: 0.47–0.63, high risk: 0.64–1.0) . A significant difference in 1-year mortality rates has been observed among low-risk compared to medium- and high-risk patients (2.1 *vs.* 17.7 *vs.* 80.8 %, p <0.0001). We report the case of an old-old patient with a recurrence of head and neck cancer with an Onco-MPI score of 0.46 suggesting low risk of mortality. Before the scheduled surgery, the patient survived a bilateral COVID-19 pneumonia and did not require external ventilation. After a month, he underwent ENT surgery and returned home the very following day with no clinical problems in the follow-up.In our experience the Onco-MPI is confirmed an highly accurate and well-calibrated tool in predicting mortality in older cancer patients irrespective of their tumor. It has been able to recognize an extremely fit old-old patient. The prediction of a low risk of mortality was confirmed also with regard to COVID-19, a completely new infectious disease whose prognosis in elderly patients is extremely poor. This experience supports the utility of a multidimensional assessment in all elderly patients.

PHARMACOLOGICAL TREATMENT OF DELIRIUM: A CASE OF UNWANTED REACTION BY THE USE OF HALOPERIDOL

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INTRODUCTION: Delirium is the most common acute neuropsychiatric disorder in the elderly, characterized by several adverse outcomes. Haloperidol is the standard antipsychotic therapy used in delirium treatment, which side effects are however not negligible. Isolated cases of non-epileptic myoclonus and rare cases of pancytopenia, whose pathogenesis is uncertain, are reported in literature. We report a case of non-epileptic myoclonus and pancytopenia arising after administration of haloperidol.

MATERIALS AND METHODS: A 94-year-old woman was admitted to the Emergency Room with deep asthenia. Clinical history: arterial hypertension, dyslipidemia, chronic heart failure, chronic gastritis, hypothyroidism, chronic renal failure with hydronephrosis due to a high grade urinary bladder cancer. At admission the laboratory data showed high levels of serum creatinine and mild hyponatremia, so intravenous hydration was started; the remaining laboratory data were normal. Chest and abdominal x-Rays did not reveal any abnormalities. Brain CT without contrast showed generalized atrophy, mostly at frontal lobes, without acute lesions. During the first night of hospitalization, the patient developed hyperkinetic delirium, unresponsive to non-pharmacologic interventions. Low-dose of intramuscular haloperidol was administrated with partial clinical response. Few hours later, the patient developed rapid, involuntary movements of the four limbs, motor restlessness and inability to remain quite. Electroencephalogram was performed and resulted negative for epileptic abnormalities. A diagnosis of drug-induced

myoclonus was suspected and an oral treatment with Clonazepam was started with a good clinical response. Moreover, during hospitalization, a transient pancytopenia was found at blood tests, with mild leucopenia, moderate anemia and severe thrombocytopenia. The patient did not develop any mucocutaneous petechiae or major bleeding. During hospitalization, heparin was never administered. In the suspect of immune-mediate disease, pancytopenia was treated with platelets and RBC transfusions and intravenous steroids. In the following days progressive normalization of laboratory exams occurred (reduction of serum creatinine and increase in platelet count and hemoglobin level until the physiologic values).

RESULTS: Although in literature there is unanimous consensus to define non-pharmacological treatment as the best approach to manage hyperkinetic delirium, in clinical practice the use of antipsychotics is common, despite a number of potential severe adverse events, especially in older patients, because of pharmacokinetic and pharmacodynamic alterations and interactions. Although many adverse reactions are dose and time-dependent, many other can be unpredictable and the diagnosis is often by exclusion. In our case, the temporal correlation between drug administration and occurrence of myoclonus and pancytopenia, progressive clinical and laboratory improvement following drug withdrawal and absence of other possible causes support the diagnosis of drug-induced neurological-hematological damages. Elderly are extremely susceptible to adverse drug-induced events, and it is necessary to suspect a iatrogenic genesis underlying any clinical-laboratory variation. The use of tools such as Beers or START&STOPP criteria may reduce the risk of prescriptive errors and drug-induced adverse events. Finally, non-pharmacological management of delirium may avoid the use of neuroleptics and their potential side effects.

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PROGNOSTIC FACTORS FOR RECURRENCE AND MORTALITY IN ELDERLY HOSPITALIZED PATIENTS WITH CLOSTRIDIUM DIFFICILE INFECTION

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BACKGROUND: Clostridium difficile enteritis is one of the most severe nosocomial infections. Its incidence in the hospital setting has increased significantly in the last 20 years, with a significant health impact, due to a frequent negative prognosis in terms of recurrence, residual disability, and mortality. The main aim of this study is to identify prognostic factors for the negative outcome of this disease, in terms of mortality and recurrence, in a population of adult and elderly hospitalized patients.

METHODS: this observational, retrospective, and monocentric study was conducted at "Azienda Ospedaliero-Universitaria of Ferrara", including all patients hospitalized in 2018 who tested positive for the specific diagnostic test for toxinogenic CD in stool. For each patient were collected retrospectively demographic and clinical data about co-morbidity, therapy, and pre-hospitalization setting, use of antibiotics and inhibitors of gastric acid secretion in the previous month, and laboratory parameters. The first infection's episode and recurrence episodes per patient were described, thus analysing the characteristics of the deceased patients within 30 days from the first diagnosis and of the patient who developed recurrence, defined as an infection's episode that arose at least one month after the end of previous disease's episode.

RESULTS: 232 patients were enrolled (average age 76.8 years), of whom 193 (83.2%) were 65 years old, and 141 were female (65%). Patients deceased 30 days after diagnosis were 67 (28.9%); the latter were older than the surviving patients (average age 80.7 *vs.* 75.2, p=0.004), presenting a higher Charlson Comorbidity Index (median 7 *vs.* 6, p= 0.02) and higher prevalence of cognitive impairment (29.9% *vs.* 16.4%, p=0.03). The proportion of institutionalized patients was higher than survivors (46.3% *vs.* 17.6%, p=0.0001). Deceased patients showed higher inflammatory markers than survivors (p=0.008 per leukocytes, p=0.04 for PCR), and a proteinemia with lower albuminemia (p=0.05 and p=0.007 respectively). The administration of penicillin and cephalosporin in the month preceding the onset of CDI (p= 0.04 for each one), were more frequent in the group of deceased patients, as well as the intake of anti-HR2 (p=0,02). In multivariate analysis, the factors significantly and independently associated with mortality are female sex (OR 1.27, 95% C.I. 1.18-1.36), cognitive impairment (OR 1.69, 95% C.I. 1.58-1.81), institutionalization (OR 4.58, 95% C.I. 4.28-4.89), previous intake of cephalosporins (OR 2.84, 95% C.I. 2.66-3.04) and anti-HR2 (OR 3.96, 95% C.I. 3.71-4.24). Also leukocytes correlate significantly with mortality (OR 1.17, 95% C.I. 1.09–1.25), as well as hypoalbuminemia (albuminemia OR 0.57, 95% C.I. 0.53 – 0.61). Among surviving patients, 26 (15.8%) have developed recurrence; in multivariate analysis the administration of lansoprazole was significantly associated with the risk of recurrence (OR 3.30, 95% C.I. 1.04-10.45) while an inverse association has been observed between the assumption of pantoprazole and the recurrence of disease (OR 0.18, I.C. 95% 0.06 - 0.56).

CONCLUSIONS: from these data, although limited by a small sample and retrospective design, we can conclude that frailty, expressed as protein malnutrition, inflammatory state, cognitive impairment and institutionalization, is an important prognostic factor for mortality in the CDI, unlike the age, which is not associated with poor prognosis disease. About medications, lansoprazole was found to be a factor of recurrence of C. difficile infection, while pantoprazole showed an opposite risk profile.

TRANSITIONAL CARE: STANDARD OF CARE

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INTRODUCTION: At admission in hospital acute wards, patients need to be screened for risk of difficult discharge and discharge planning may be started as soon as possible [1]. Objective data may be helpful to guide clinicians in order to identify those patients whose dismissions from hospital would benefit from specific resolutive interventions of transitional care [2]. Transitional care strategies improve transitions between hospital and home or among different settings of care, with the aim to provide coordination and continuity of care.

MATERIALS AND METHODS: We collected 612 patients, acutely ill, who were admitted to our Geriatric Unit in six months (April-September 2019). Mean age was 84.2 years (sd = 7.7), 54% were females. Based on home (HD) or not-home discharge (NHD), we distinguished two groups whose median age was homogeneous (85 years). Each group was further clustered in three on behalf of Blaylock Risk Assessment Score's three risk groups. BRASS values were assumed between 0 and 40; low risk accounted for 0-10 points, intermediate 11-19, high ≥ 20.

RESULTS: Among our patients, 66% were dismissed at home: they distributed circa equally among the three levels of BRASS.

Contrarily, patients who were not-home discharged belonged in majority to high-risk level of BRASS (19% *versus* 5% and 7% for low and intermediate levels, respectively). Chi-squared test confirmed a statistically significant association between BRASS' three levels of risk and HD/NHD ($p < 0.001$). Starting from this point, we evaluated transitional care strategies applied for our six groups to investigate any differences among them. Global mean of adopted strategies was 2.0 (sd = 1.42); among groups, the lowest value was found for NHD patients with intermediate level of BRASS (1.65), while those with low risk BRASS reached the highest average number of strategies (2.5). Not surprisingly, the number of transitional care strategies was not associated with BRASS levels ($p = 0.46$). For what concerns type of strategies, 56% of our overall patients received recognition/reconciliation of therapy, followed by ambulatorial follow up appointments (21%), telephonic contact with other professionals (11%) and interaction with social services (11%). Considering HD and NHD patients, evident differences were found in the application of some procedures. Comprehensive geriatric assessment (Unità di Valutazione Multidimensionale Complessa, UVMC) was performed for 15% of NHD patients, while only 1.8% of HD patients received it. More than one quarter of HD patients received a follow up ambulatorial appointment, which was applied for only 1 on 10 of the others. No therapeutic education was needed for NHD, while 7% of those going home received it. Prescription of mobility, insulin therapy, oxygen therapy and incontinence aids accounted for 13% of HD, which is twice the percentage emerged for NHD.

CONCLUSIONS: Strategies of transitional care have the purpose to promote the continuity and coordination of health care as patients move among different settings of care. Different types of patients may benefit from various procedures and interventions need to be person-centered. Profiles of complex patients may be further investigated in order to identify determinants of not-home discharge. In a broad healthcare management perspective, an extension of the approach described above may be adopted to define the number and type of interventions to implement and support home dismissions.

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MULTIDIMENSIONAL PROGNOSTIC INDEX PREDICTS DELIRIUM IN OLDER PATIENTS WITH HIP FRACTURE WHO UNDERWENT SURGICAL INTERVENTION

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BACKGROUND: Delirium is a severe clinical complication in acute older patients hospitalized for hip fracture who need surgical intervention. The onset of delirium increases the risk of delay in surgical intervention, length of in-hospital stay, morbidity and mortality. Unfortunately, no tools have been yet validated to identify the patients at risk of delirium in the acute hospital setting. Aim. In this retrospective observational cohort study, we evaluated whether the Multidimensional Prognostic Index (MPI) could predict the delirium onset in older individuals admitted to the hospital for hip fracture who underwent surgical intervention.

METHODS: Consecutive older patients admitted to the hospital for hip fracture underwent a comprehensive geriatric assessment (CGA) to calculate the Multidimensional Prognostic Index (MPI) from information on functional, cognitive, mobility and nutritional status, co-morbidity, number of medications and co-habitation. According to previous cut-off, MPI was expressed in three grades, *i.e.* MPI-1 (low-risk), MPI-2 (moderate-risk) and MPI-3 (high risk of mortality). Delirium was assessed during hospitalization using 4 AT test.

RESULTS: 244 older patients (mean age 85±6.9 years; females=84.2%) who underwent surgery for hip fracture were included. 104 subjects (43%) received a diagnosis of delirium. Patients with delirium showed higher pre-operative cognitive impairment ($p=0.0001$), lower baseline functional status ($p=0.001$) and were older than patients who did not experience delirium. Logistic regression analysis demonstrated a significant association between MPI grade and MPI score and the onset of delirium during hospitalization ($p<0.05$ and $p<0.0001$, respectively). Overall, the incidence of delirium during hospitalization was significantly higher in patients with more severe MPI score.

CONCLUSIONS: MPI may be an useful tool to identify older patients at risk of delirium when admitted to hospital for hip fractures and have to undergo surgical intervention.

THE MULTIDIMENSIONAL PROGNOSTIC INDEX FOR THE PROGNOSTIC STRATIFICATION OF OLDER INPATIENTS WITH COVID-19: A MULTICENTER STUDY OF THE ITALIAN GERIATRIC SOCIETY HOSPITAL AND COMMUNITY (SIGOT)

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BACKGROUND: The recent diffusion of the coronavirus-19 disease (COVID-19) has reached proportions to be declared a pandemic disease, particularly in older people. This pandemic created important issues in terms of prognostic evaluation. Multidimensional prognostic index (MPI) is widely used as prognostic tool in geriatric medicine. However, there are no studies yet regarding the use of MPI to predict prognosis in older COVID-19 patients.

METHODS: Older hospitalized patients (age>65 years) affected by COVID-19 across five Italian hospitals were included from 26th April to 19th June 2020. At baseline, a comprehensive geriatric assessment was made and the MPI calculated accordingly. Clinical, bio-humoral and instrumental information related to COVID-19 were also collected. A follow-up period wasproposed.

RESULTS: 104 Italian participants hospitalized for COVID-19 (mean age: 81.1±8.0; range: 65-95 years; females=66.3%) were included. Their mean MPI value was 0.56±0.25, with 21.4% in the MPI low risk, 28.2% in the moderate and the 45.6% in the high risk MPI category. Among clinical signs investigated, cough was significantly more common in the MPI 1 compared to the MPI 3 category (63.6 *vs.* 27.7%, $p=0.003$). Regarding vaccination history,

people in MPI presented a higher prevalence of anti-pneumococcal vaccination (22.7% *vs.* 4.3%, p=0.02) than those in MPI 3. Finally, regarding therapeutically approach, people in MPI 1 were more frequently treated with anti-retroviral medications than their counterparts (p=0.03) and were more frequently exposed to non-invasive ventilation (54.5 in MPI 1 *vs.* 10.6% in MPI 3, p=0.003).

CONCLUSIONS: Older people hospitalized for COVID-19 have a high prevalence of frailty making this condition of importance for clinical-decision making. Physicians had the propensity of using more frequently non-invasive ventilation and anti-retroviral medications in less frail patients. The prognostic role of anti-pneumococcal vaccination should be explored during the follow-up period.

CASE REPORT: DOUBLE DOSE OF IDARUCIZUMAB FOR DABIGATRAN-RELATED GASTROINTESTINAL BLEEDING

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BACKGROUND: We report a case of a 70 years old woman with a history of atrial fibrillation under dabigatran 150 mg x 2, who came to hospital for three days' diarrhea and rectal bleeding.

AIM: Despite evidence of DOAC safety, there are valid concerns regarding an anticoagulant effect in the setting of uncontrolled bleeding. Idarucizumab is a monoclonal antibody fragment that binds dabigatran with high affinity. This reversal agent rapidly corrects the coagulopathy induced by dabigatran in life-threatening bleeding or urgent surgery.

METHODS: On initial physical examination, the patient was oriented, GCS 15, BP 85/50, 69 AR, SpO2 96% AA, FR 18/min. No signs of peritoneal irritation. Rectal exploration: blood in stool. The last dose of dabigatran was reportedly taken the night before. The blood analysis showed an altered hemogram GB 40,72k, HB 8,2 g/dl (last 12 g/dl days before), PLT 570k, Cr 3,59 mg/dl, Urea 266 mg/dl Glu 205mg/dl, Na 122 mEq/L, PCR 79,9 mg/L. EGA: metabolic acidosis and hyperkalemia. The laboratory analyses of haemostasis were inconclusive. After two blood transfusions, fluids, PPI and the administration of idarucizumab 5 g, the patient clinical situation remained stable. Abdominal Angio CT scan revealed no active bleeding, but the rectal bleeding wasn't controlled. aPTT was 102s and the patient was still hypotensive, so started norepinephrine and the third UEC. Dabigatran in blood was 982 ng/ml and again (because of unstoppable rectal bleeding) an urgent need to idarucizumab 5 mg and plasma infusions. Newly blood sample: dabigatran plasma concentration 100 ng/ml. Because of marked hypotension, was increased the posology of norepinephrine, provided another blood trasfusion, started tranexamic acid, ceftriaxone and fixed iron, cyanocobalamin and folate deficiency. Colonoscopy showed dark stool with minimal bright red traces. No signs of bleeding at the liver fissure, mucous area scarring and friable.

RESULTS: No bleeding in the third day (aPTT 93, INR 2,15, HB 11 g/dl). Histological exam: fragments of colic mucosa and granulation tissue. The patient resumed anticoagulants with EBPM and then with apixaban 5 mg x2.

CONCLUSIONS: With the approval of idarucizumab, there was an improving in patient safety (REVERSE AD trial). An idarucizumab 5 g intravenous infusion was administered a second time to reduce the risk of important bleeding complications, prolonged coagulation times, emergency high-bleeding risk surgeries or invasive procedures with no idarucizumab antibodies and reversal effects. The development and implementation of reversal anticoagulation protocols are needed for the optimal management of anticoagulation effect.

CASE REPORT: JAUNDICE AND POLYMORPHIC ERYTHEMA, TWO SIDES OF THE SAME DISEASE?

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INTRODUCTION: Autoimmune hepatitis (AIH) is a cause of chronic, inflammatory liver disease characterized by circulating autoantibodies. It is usually suspected based on clinical presentation and abnormal liver biochemical laboratory findings, but the diagnosis relies on the presence of specific autoantibodies and histology.

CASE PRESENTATION: The patient is a 73-year-old female with a history of hypertension and glaucoma with weight loss, anorexia, fatigue for the last 3 months. About 20 days before episode of fever (39°) treated with antibiotic (prulifloxacina) in suspicion of cystopielitis. Not alcohol intake, jaundice. An abdominal ultrasound (confirmed by TAC) was also performed and showed increased echogenicity of the periportal spaces and the hepatic hilum, non-dilatation of the intra and extra-hepatic biliary tract; gallbladder lithiasis, minimal increase in pancreatic head size which is hypoechoic but without focal lesions or dilatation of the common bile duct or Wirsung. Laboratory results indicated an elevation of aminotransferase (AST 40 times the upper limit), IgG, bilirubinemia and INR, absence of viral hepatitis B, A and C, no active CMV and Epstein-Barr infections. Positive autoimmune panel including ANA 1:320, ENA- EIA, Ac.Anti Sm D, Ac. anti Scl70. Negative antibodies ASMA, ANCA and AMA. Simplified Autoimmune Hepatitis (AIH) Score of 7 (likely score). During hospitalization appearance of polymorphic erythema. Significant improvement in symptoms after taking prednisone.

CONCLUSIONS: Autoimmune hepatitis can start as an acute hepatitis and could progress to chronic liver disease and cirrhosis. It has a heterogeneous nature with variability in its clinical features from asymptomatic to patients with debilitating symptoms.

ANTICOAGULANT PRESCRIPTION AND MORTALITY IN OLDER PATIENTS WITH ATRIAL FIBRILLATION: THE EUROPEAN STUDY OF OLDER SUBJECTS WITH ATRIAL FIBRILLATION STUDY (EUROSAF)

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INTRODUCTION: Some studies suggested that a different risk of mortality may influence the attitude of physicians in prescribing oral anticoagulants in older patients affected by atrial fibrillation (AF). The Multidimensional Prognostic Index (MPI) showed a high grade of accuracy, calibration and feasibility for predicting mortality in older people, but prognostic information calculated through the MPI class (*i.e.* MPI-1 low-risk, MPI-2 moderate risk, MPI-3 high risk of mortality) is not yet included in the decision algorithm of treatments in older patients affected by AF. The aim of this study was to evaluate the association between the use of oral anticoagulants and 1-year mortality in patients with different MPI score.

METHODS: Older hospitalized patients (age>65 years) with non-valvular AF were included. At baseline, functional and clin-

ical information will be collected to calculate the MPI, the CHA2DS2-VASC and the HAS-BLED scores.

RESULTS: At 1st July 2020, 1,875 older patients affected by AF from 22 European centers were included. Of them, 1,708 with a mean age=82.9±7.5 (women=57.0%) were included in the interim analysis. The mean HAS-BLED and CHA2DS2-VASC scores indicated patients at both higher risk of major bleedings and thromboembolic events. The mean MPI score was 0.50±0.21 points, with 447 (=26.2%) at low risk (MPI-1), 809 (=47.4%) at intermediate risk (MPI-2) and 452 (26.5%) at high risk of mortality (MPI-3). During one year of follow-up and after adjusting for MPI at discharge, age, gender, HAS-BLED, CHA2DS2VASC, the use of new oral anticoagulants (NOACs) significantly decreased the risk of mortality (hazard ratio, HR=0.49; 95%CI: 0.36-0.66) and, less extensively, the use of vitamin K antagonists (VKAs) (HR=0.74; 95%CI: 0.55-0.98). The use of NOACs significantly decreased mortality risk independently from the MPI groups: MPI-1 HR=0.22 0.10-0.51, p<0.0001; MPI-2 HR=0.52 0.33-0.82, p=0.005; MPI-3 HR=0.55 0.35-0.86, p=0.009.

CONCLUSIONS: In older patients with AF, the use of NOACs seems to decrease the risk of death compared to people not taking anticoagulants, independently from the MPI categories.

ASSESSMENT OF THE INCIDENCE OF PRESSURE INJURIES AND ASSOCIATION WITH PREDICTIVE FACTORS: RESULTS OF A RESEARCH STUDY IN ASL 2, LIGURIA REGION

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INTRODUCTION: Pressure injuries are a problem especially for elderly frail, disabled and with reduced mobility subjects. The size of ulcers is still underestimated today, as the first stage ones are not systematically included in the epidemiological analyzes 1.The high frequency of the phenomenon, the reduced quality of life of individuals and the significant cost of treatments, underline the need for administrators of the Health System, to implement effective and efficient prevention and government mechanisms, through the continuum of assistance, based on the best scientific evidence, with the support of experienced professionals.

AIM: Evaluate the incidence of pressure injuries in a court of patients hospitalized for other causes and identify any possible associations with predictive factors.

MATERIALS AND METHODS: Between May and November 2019, an observational clinical study was promoted in 17 structures belonging to the ASL 2 Regione Liguria, which involved 515 patients, enrolled with a consequential method.Persons under the age of 18 were excluded, unable to express their informed consent and with pressure injury, of any type and stage, already existing at the time of entry and / or transfer.The data collection took place in two distinct times, during the admission (T0) and discharge phase (T1).Through a predefined form, the personal, social, anamnestic characteristics, clinical measures and drug therapy have been studied. The risk of compromised skin integrity (Braden Score) and autonomy in carrying out daily activities (Barthel Index) were investigated. The data analysis took place through the use of the SAS 9.4 software of 2017.

RESULTS: 268 men and 247 women were enrolled, with an average age of 70 years. The main diseases detected were osteoarticular, gastrointestinal and neoplasms. Of the 515 patients, at T0.141 they were high risk, while at T1102, with a percentage decrease of - 7.6%. The autonomous people at T0 were 179 and at T1 231, with a percentage variation of + 10%. As a point of the Barthel scale decreases, there is a 2.5-5% increase in the probability of having an ulcer. 7% of the sample had pressure ulcers with a projection, in the age group between 85-100 years, of 15%. The association between pathologies and injury development was statistically more important in the presence of heart failure (p value = 0.0448) and COPD (p value = 0.0120).

CONCLUSIONS: The results confirm that pressure injuries are an outcome related to nursing care.The focal points for safeguarding safety and improving the quality of care are a timely and early assessment of risk factors, the degree of autonomy and the use of methods and tools of prevention and assistance in line with the most recent recommendations of good clinical practice.

PREVALENCE OF SARCOPENIC OBESITY IN OLDER PERSONS DIAGNOSED BY EWGSOP2 AND FNIH CRITERIA

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BACKGROUND: Current EWGSOP2 and FNIH sarcopenia diagnostic criteria standardized skeletal muscle mass estimates using different METHODS: As consequence anthropometric characteristics of sarcopenic patients are substantially different according to the diagnostic criteria used. Aim. To investigate the prevalence of sarcopenic obesity and type 2 diabetes in older persons with sarcopenia defined according to EWGSOP2 and FNIH criteria, evaluating the concordance between the two Methods.

METHODS: Data are from the GLISTEN study, an observational multicenter study performed in 620 older patients admitted in 12 Italian hospitals in 2014. Data were collected through Comprehensive Geriatric Assessment; moreover, skeletal muscle mass (Bioelectrical Impedance Analysis) muscle strength (Hand Grip Strength) and physical performance (gait speed) were evaluated.

RESULTS: Among sarcopenic patients, the prevalence of sarcopenic obesity was 30.8% according to FNIH criteria, while no patients were defined as sarcopenic using EWGSOP2 criteria. According to EWGSOP2 criteria, 23.7% of sarcopenic and 30.8% of non-sarcopenic patients had diabetes (p=0.11); whereas, using FNIH criteria, 36.3% of sarcopenic and 26.9% of non-sarcopenic patients were diabetic (p=0.04). In multivariable logistic model diabetes was significantly associated with the likelihood of sarcopenia according to FNIH (OR 1.67; 95% CI 1.09-2.56) but not according to EWGSOP2 criteria (OR 0.82; 95% CI 0.51-1.30).

CONCLUSIONS: The EWGSOP2 and FNIH criteria have significantly different association with prevalence of sarcopenic obesity and type 2 diabetes, with EWGSOP2 criteria having very low sensitivity for intercepting patients with sarcopenic obesity.

DELIRIUM AND COVID-19 IN HOSPITALIZED ELDERLY PEOPLE

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INTRODUCTION: SARS-CoV-2 causing Coronavirus Diaease 19 (COVID-19) represents an important threat to the eldery, is most vulnerable to severe infections and mortality. COVID-19 can vary from asymptomatic or mild forms to severe cases, characterized by acute respiratory distress syndrome (ARDS). Additionally, less typical clinical features can occur, including delirium. Delirium is a potentially fatal acute brain dysfunction marked by inattention, fluctuating mental changes, and transient consciousnesses, most frequent in geriatric patients. Health care providers should watch for delirium and approach it as an urgent medical complication.

METHODS: 58 hospitalized patients, positive for SARS-CoV-2 (PCR) were examined with multidimensional assessment. We calculated the risk score of delirum with 4 AT.

RESULTS: Of 58 patients (M = 36,20%) 44,82% were>65 years of age (n= 26; 76,10 ± 8,70 years). 30,76% (8/26) had delirium by 4AT. The cases of delirium found had characteristics in common. These were patients over 65 with an underlying cognitive impairment. They had polypathology (CIRS 6,78±2,34) and polypharmacotherapy (8,8±1,4) with bilateral pulmonary involvement. They all had elevated inflammatory markers, particularly CPR, which may be suggestive of a dysregulated immune response as a possible delirium precipitate. All of them were treated with antipsychotic therapy.

CONCLUSIONS: Although there is no consensus regarding the use of antipsychotics for delirium treatment, their administration could be considered in COVID-19, when patient safety is at stake. Implementation of traditional non-pharmacological procedures is nearly impossible, due to patient isolation, low staff availability and the limited use of family members. The lowest possible doses are recommended, with close monitoring of vital signs, hydration, and consciousness and potential prolongation of the QT interval. To prevent delirium, prompt recognition is needed, and patients should be systematically screened for delusional risk factors.

PRELIMINARY DATA OF THE IMPACT FROM THE COVID-19 PANDEMIC ON HEALTH STAFF OF RESIDENTIAL STRUCTURES

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INTRODUCTION: In addition to having a significant impact on world health, severe acute respiratory syndrome (SARS-CoV-2) coronavirus has produced prolonged exposure to the population to stressful stimuli which has been a risk factor for many diseases, including psychiatric ones. The spread of the COVID-19 pandemic, the lockdown and the disease intensity, has led to people experiencing fear and anxiety.Of the 246,000 confirmed cases of SARS-CoV-2 in Italy, 31,690 were recorded in Piedmont.Numerous health professionals including doctors, nurses and health workers have fallen ill, some physically, others psychologically. Some died of coronavirus, others, decided to end their life committing suicide.For this reason, the aim of this work is to evaluate the impact of the covid-19 pandemic on the health personnel involved in the care of elderly patients hospitalized in the covid nucleus.

MATERIALS AND METHODS: 18 workers (7 males and 11 females) with an average age of 28.5 years (ds 12.11) and an average schooling of 15.60 (ds 3.20) were examined. Each subject was subjected to a questionnaire aimed at assessing the impact of the event on the staff (IES-R Impact of Event Scale-Revised). (1) IES-R is a 22-element self-report measure that evaluates the subjective stress caused by traumatic events. Respondents are asked to identify a specific stressful life event and then indicate how much they have been distressed or annoyed in the past seven days by each listed difficulty.The IES-R provides a total score (between 0 and 88) and the subscale scores can also be calculated for intrusion, avoidance and hyperarousal subscales. The reference cut-off is greater than or equal to 33.The coping style adopted by the person to face the event was assessed using the COPE-NVI scale. (Coping Orientation to the problems encountered - Italian version) (2) it is a self-report questionnaire that takes into consideration five coping methods, social support, avoidance strategies, positive attitude, problem orientation and transcendental orientation.Social support is the search for understanding, information and emotional release, avoidance strategies include the use of negation, substance use, behavioral and mental detachment, positive attitude includes an attitude of acceptance, containment and positive reinterpretation of events), the orientation to the problem uses active strategies and planning while the transcendent orientation refers to religion and the absence of humor. A higher score in the various dedicated articles indicates the coping strategy provided by the person.To evaluate the onset of depression, anxiety and stress, each participant underwent DASS-21 (The Italian version of the Depression Anxiety Stress Scales-21). (3)The test consists of 21 statements evaluated by a likert scale that goes from 0 to 3 (0 = has never happened, 3 = has always happened). Correction of the scores involves multiplying the results of anxiety, depression and stress for 2.Stress, anxiety and depression have different reference ranges.

RESULTS: On 18 subjects, reported on the IES-R scale reported that 4 workers reported developed a possible post-traumatic stress disorder (PTSD), the average group results are within the reference range (average 23.39 - ds 16,15). In the hyperarousal subscales, intrusiveness and avoidance, the latter acquired higher average (average 9.11 - ds 6.37) emphasizing the conduct carried out by our group of workers. 5 of them developed the stress observed by the controls of clinical relevance, on average the distribution of the score observed at 9.33 (ds 8.89), neither out of threshold controls were detected in individuals, nor in the group anxiety and depression.As far as coping strategies are concerned, it seems that the positive attitude (AP) and the orientation towards the problem (OP) are the most used in the sample we examined (selected AP = 30.72 - ds 7.19 and OP = 27,11). In our sample avoidance strategies were used on average at 21.56 with ds 4.09.

CONCLUSIONS: The overexposure to suffering (physical and mental) in recent months has led health professionals who assist elderly patients to experience symptoms of a psychopathological nature. Our preliminary data suggest that good coping strategies such as positive attitude and problem orientation are protective in the development of mental pathology, as no worker in our group has developed anxiety or depression, only 5 out of 18 people developed stress and 4 a possible PTSD.

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THE HISTORY OF GAETANO

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WHO defines dementia as "a chronic degenerative disease characterized by the rapid progression of cognitive deficits, behavioural disorders and functional impairment with loss of autonomy and self-sufficiency accompanied by various degrees of disability and consequent dependence on others, which can result in complete immobilization". We know that it is not an easy task to take care of a patient suffering from this pathology, and it becomes even more difficult when he or she is a family member, a loved one. We can state that the dementia affects two people at a time: the patient and his caregiver, therefore we can consider it a "family pathology". Besides the loss of memory, patients can also experience anxiety, depression, irritability and wandering, and a forced domiciliation in such cases, especially like the one happened last March, can cause the deterioration of these states. Furthermore, the closure of the health and social care places (day centers, Alzheimer Caffè) meant that the care of the patients weighed entirely upon the families , which resulted in a general worsening of the state of patients and in the probable emergence of symptoms in caregivers. In this article we reveal the story of Gaetano, a patient suffering from Alzheimer's, and his family.Gaetano, Elena's dad, wakes up at 7.30 in the morning, for quite some time, but he can't get up on his own. Maria, his wife, has to encourage and incite him, and she also has to help him to have a breakfast with the "ritual" of taking medicines. The morning is long, but there are activities that Maria and Gaetano need to do: take a shower, Gaetano needs to be accompanied in the courtyard to exchange some memories with their neighbours. Then they go to the Alzhaimer Cafè near the house, where Gaetano keeps his social relationships and Maria can spend time with other patients' family members and professional carers in an entirely informal way in order to break the tiring routine of home care. Afterwards Maria and Gaetano set off for long walks, which he likes very much. Such walks calm him down and lessen his anxiety. Elena visits her parents very often, after work or at the weekend. Elena tries to spend as much time as she can with them, especially with the dad. The daughter's caress and kisses calm him down. Maria says he cheers up for the rest of the day, and she can rest a little and recharge her energy that she needs to be able to take care of her husband properly. Many of Gaetano's activities are carried out outdoors, he likes being outdoors. It lowers his anxiety and irritability levels. But from February 20, 2020, Gaetano doesn't go out anymore, he is forced to stay indoors. No more long walks, the Alzheimer Cafè is closed, their neighbours cannot go out, their daughter cannot come to visit them. These are the rules of the government to protect citizens, especially the most fragile, like him, from the possibility of contracting the virus. Furthermore, now Maria is alone to assist him. Elena lives in another country. Maria has to fill Gaetano's days, resist his mood swings, keep, as far as possible, the same rhythm, and try to explain to Gaetano the reason for this situation of the COVID-19 presence and its consequences several times during the day. During the lockdown Gaetano got worse, his anxiety increased, the depression has appeared, which partially also affected Maria because she fears for her and her husband's safety. What helped Gaetano and Maria to overcome the difficult situation of social isolation was the use of technology. The possibility to communicate with the loved ones through a screen was essential for them and made them feel less lonely and closer to their family. Today, after many months of social isolation, Gaetano presents, thanks to the support of his wife and the use of tools such as cell phones and computers, only a slight deterioration of his clinical conditions. Without the loving care of his wife and remote contact with his loved ones Gaetano would certainly have suffered a greater deterioration of his cognitive abilities. This short story from the period we just lived through shows the need for social policies aimed at supporting caregivers, figures of fundamental importance in the life of patients, but whose role is not recognized currently.

ROBOTIC GAIT REHABILITATION OF A PARKINSON'S DISEASE PATIENT: A CASE REPORT

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AIM: Gait disorders represent one of the most disabling motor symptoms in Parkinson's disease (PD), frequently associated with a loss of balance, increased risk of falls, loss of independence and a negative impact on the quality of life. The aim was to test the effect of robot-assisted gait therapy with the ReoAmbulatorTM system (Motorika USA) in one representative individual with Parkinson's disease (PD).

MATERIALS AND METHODS: The patient was a 74-year-old male with an 5-year history of PD. The manifestation of the disease included depressive mood, bradykinesia, moderate rigidity and postural instability with increased risk of fall. Hoehn and Yahr score stage in the "on phase" was 3. Drug therapy of PD remained unchanged over the observation period. At first the patient underwent a conventional rehabilitation therapy followed by a week wash out. Finally robot-assisted gait training (RAGT) consisted of treadmill walking with stimulating virtual reality exercise and real-time audio and visual feedback. Each treatment was performed for 3 weekly sessions for 4 weeks. Outcome measures: Mini Mental State Examination (MMSE); Parkinson Neuropsychometric Dementia Assessment (PANDA) with cognitive tasks and a short depression questionnaire; Timed Up and Go (TUG); Ten-meter Walking Test (10mWT); Six Minute Walking Test (6MWT); Berg Balance Scale (BBS).Each evaluation was performed before CT (T0), repeated immediately after the completion of the first 4 weeks, (T1) and finally at the end of a 4-week of RAGT (T2).

RESULTS: We detected at T1 an improvement in all outcome measures: MMSE (25.3 *vs.* 26.3); PANDA cognitive (16 *vs.* 18); PANDA depression (6 *vs.* 3); TUG (18.9 *vs.* 16.7 sec); 10mWT (18.11 *vs.* 12.51 sec); 6MWT (258 *vs.* 276 m); BBS (37 *vs.* 46). Further improvement detected at T2 (MMSE 27.3; PANDA cognitive 21; PANDA depression 2; TUG 13.8 sec; 10mWT 9.41 sec; 6MWT 292 m; BBS 50). Moreover we evidenced an important reduction in timing of execution of cognitive tests (MMSE and PANDA). The patient referred a subjective improvement with greater independence in the ADL.

DISCUSSION: Our results showed that RAGT can improve movement and balance disorders, improving speed and stride length, with positive effects on the level of functional autonomy and the quality of life. Furthermore, it shows the possibility of stimulating multiple tasks simultaneously (dual-task) seems to suggest a positive action on cognitive performances (working memory) associated with an improvement on other non-motor symptoms of PD, such as depression.CONCLUSIONS: RAGT is an effective and well tolerated rehabilitation therapy in PD patients. The additive effect of RAGT on CT may improve and strengthen the cognitive and functional RESULTS:Further studies are needed to assess the potential advantage of these combined therapies in an extended sample and to define the duration, the frequency of the sessions and further parameters of RAGT (length, speed, percentage of weight discharged, and variations of the same during the session, etc.).

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FEASIBILITY, ACCEPTABILITY AND USEFULNESS OF A TELEMEDICINE PROGRAM IN OLDER PEOPLE WITH DEMENTIA DURING COVID-19 PANDEMIC

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AIM:To investigate the feasibility, acceptability and usefulness of a telemedicine (TM) program in older people with dementia and their caregivers, during the COVID-19 pandemic isolation rules.

METHODS: From March 9 to May 11, 2020, 140 older patients and their caregivers, followed-up by our Center for Cognitive Decline (CDCD), were contacted by telephone and interviewed by using a telephone-based survey. Of the 131 respondents, 119 participants accepted to receive a TM visit by using a dedicated connection (jiitsi meet/Galliera), including only the dyads with access to PC, tablet or smart phone for 2 way video interaction.

RESULTS: Of the 131 respondents (mean age 80.6±6,1 years; males=20%), 85 (69.4%) lived accompanied, 40 (30,5%) lived alone with caregiver supervision. During the lockdown period, the isolation measures forced 20/131 respondents (15,2%) to change their living arrangements. Grocery and pharmacy outings were performed by family members in 111/131 participants (84,7%). Health status was found to be stable in 79/131 respondents (60,3%), with no COVID-19 symptoms; 1 patient/131 deceased for COVID-19 and 13 patients (9,1%) were hospitalized for other health problems. 53 patients out of 131 (41,9%) reported Behavioural and Psychological Symptoms of Dementia (BPSD) including sleep disorders (26,7%), anxiety symptoms (15,6%), delirum superimposted on dementia (7%) with an increased burden of caregivers. 10 caregivers out of 131 (7,6%) started a psychological support remote programme. Moreover, 63 patients (48%) reported pain. Finally, in 39 patients (29,7%) the COVID 19 emergency insight was present and 44 patients (33,6%) without disease insight reported difficulties to respect the COVID-19 restrictive and confinement measures.

CONCLUSIONS: This TM program showed to be feasible and well accepted in most of patients (93,6%). Monitoring BPSD and pain, tailoring actual therapies and delivering information and psychological care to patients and their caregivers were the most useful interventions in older patients with dementia and their caregivers.

LONG-TERM EFFECTS OF SACUBITRIL-VALSARTAN TREATMENT ON METABOLIC AND CARDIOVASCULAR PARAMETERS IN ELDERLY PATIENTS WITH HEART FAILURE WITH REDUCED EJECTION FRACTION - REAL LIFE DATA

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OBJECT OF THE STUDY: Heart failure (HF), age-related condition with high mortality and re-hospitalization rate. ARNI, whose progenitor is represented by the LCZ696 association (LCZ696) spread in treatment of HF reduced ejection fraction (HFrEF). Sacubitril inhibits neprilisine, enhancing natriuretic peptides and quinines activity, valsartan blocks the AT1 receptor of angiotensin 2. Efficacy of LCZ696 come from the results of the PARADIGM-HF study demonstrating the superiority of LCZ696 *vs.* enalapril reducing CV death and hospitalization for HF. The aim of this study was to evaluate the effect of LCZ696 treatment on clinical conditions, life's quality, laboratory and echocardiographic parameters in elderly patients affected by Chronic Heart failure (CHF) with reduced ejection fraction (rEF), many comorbidities and limitation of basic skills after a treatment of at least 24 months with LCZ696.

MATERIALS AND METHODS: We enrolled 50 patients (42 men and 8 women, mean age 74.2±8.4 years), all afferent to the Geriatrics Division at the University Hospital of Catanzaro, suffering from HFrEF and symptomatic despite optimal drug therapy. Patients with EF<35 were considered; functional class NYHA II or III, in treatment with ACE inhibitors or sartans for at least 4 weeks. Main exclusion criteria were: stage IV K-DOQI identified by estimated glomerular filtration rate (e-GFR) <30ml/min/1.73m2, severe hepatic insufficiency (Child-Pugh class C), history of angioedema, potassium>5.4 mmol/l; systolic blood pressure (SBP) <100 mmHg. All patients underwent to clinical-instrumental and blood evaluation every 6 months until 24 months to evaluate the possible benefits and adverse events. The Minnesota Living with HF Questionnaire (MLHFQ) has been administered to assess quality of life, every six months from the enrollment until 24 months. Continuous variables were expressed as mean and standard deviation (SD) (normally distributed data) or as median and interquartile range (not normally distributed data). The dichotomous data were expressed as a percentage. The longitudinal evolution of the key variables during the follow-up was analyzed by linear mixed model. In this analysis, we normalized the variables with logarithmic transformations when appropriate.

RESULTS: The mean dose reached of LCZ696 was 129.1+52.3, without serious adverse events. At 24 months data showed a significant improvement in hemodynamic-clinical parameters: heart rate (67.7±8.2vs60.6±5.7bpm, p=0.005) and respiratory rate (19.4±1.6 *vs.* 16.7±0.9acts/min, p<0.001) reduction with improvement of NYHA class and MLHFQ. The SBP was almost constant without statistically significant changes. We observed a significant improvement in glycometabolic profile, especially reduction of insulinemia (28.4±14.1 *vs.* 13.3±2.6µU/ml,p<0.0001) and glycemia (117.7±27.8 *vs.* 97.6±9.6 mg/dl; p=0.002), improvement of insulin resistance valued by the HOMA index (8.5±5.7 *vs.* 3.2±0.7;p<0.0001) and increased IGF-1 levels (109.5±31.1 *vs.* 129.8±35.3 ng/ml; p=0.040). Also HbA1c levels decreased but without statistical significance. Moreover we observed an increase in e-GFR - (68.5±19.1 *vs.* 84.4±13.6 ml/min/1.73m2; p=0.0009), a decrease in NT-proBNP levels (1266.5±1048.1 *vs.* 535.6±333.8 pg/ml; p=0.002), a relevant decrease in left ventricular end-diastolic volume (95.1±15.1 *vs.* 84.6±9.6 ml/m2, p=0.009), of telesystolic (65.8±11.5 *vs.* 49.4±6.1 ml/m2, p<0.0001) and the E/e ratio (17.3±4.4 *vs.* 14.1±4.5,p=0.010), a statistically significant increase in EF (33.6±1.2 *vs.* 39.8±1.6%,p<0.0001) and the cardiac index (1.7±0.3 *vs.* 2.1±0.4 ml/bpm/m2 p=0.009). The right heart morpho-functional parameters significantly improved: the right ventricle outflow tract (RV) was less dilated (2.6±0.2 *vs.* 2.3±0.1 cm/m2,p<0.0001), right atrium area (20.3±1.6 *vs.* 17.1±1.1 cm2, p<0.001) and pulmonary artery systolic pressure (sPAP) reduced (44.1±5.6 *vs.* 34.1±4.4, p<0.0001) and increased RV contractile function indicators: TAPSE (16.5±1.3 *vs.* 20.5±2.4 mm, p<0.0001) and TAPSE/PAPS ratio (0.3±0.1 *vs.* 0.6±0.1 mm/mmHg, p<0.0001). The improvement of pulmonary venous congestion and systemic, evidenced by reduction of the diameter

of the inferior vena cava (22.1±1.3 to 16.6±1.1 cm, p<0.0001) was evident.

CONCLUSIONS: This study confirmed clinical, hemodynamic and biohumoral improvement, in particular of the glycometabolic and renal function, left and right ventricular function parameters. This improvement has been seen not only in the first months of follow-up but it has persisted until 24 months of follow-up highlighting the persistence of the long-term efficacy of LCZ696 treatment.

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META-RESEARCH IN GERIATRIC MEDICINE: A SURVEY OF THE ITALIAN GERIATRIC SOCIETY HOSPITAL AND COMMUNITY (SIGOT)

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INTRODUCTION: Interest in systematic reviews [Srs] and meta-analyses [MAs]) is increasing. In the last years we are observing an exponential rate of publications as Srs/MAs in geriatric medicine. In order to better assess the interest in meta-research, we proposed a survey to know the knowledge and the needs in meta-research in geriatrics.

METHODS: A short survey (about 5 minutes) was freely available in the SIGOT website and diffused in social networks. The survey was available during the entire 2019. The survey regards demographic information, previous research activities and the knowledge of the participant on meta-research.

RESULTS: 199 participants mainly men (=60%) and mainly aged 55 to 64 years from all Italian regions completed the survey. Responders read more than 20 articles in the past year (=55%), but almost half read less than 10 SRs/MAs. Only 30 participants (=15.1%) wrote a SRr/MA during their work-life. At the same time, 66.6% of the included participants recognized the importance of meta-research for clinical practice and almost all the participants recognized that meta-research has changed their daily clinical approach to the patient (=90.0%). 75.4% would like to have more training in meta-research and all, except 7, suggested that SIGOT should organize training courses for meta-research in geriatric medicine.

CONCLUSIONS: Our survey showed that the interest in Srs/MAs is high, whilst the knowledge is still limited suggesting that education is needed to fill the gap in this field.

ROLE OF PROPHYLACTIC HEPARIN THERAPY IN REDUCING MORTALITY IN A COVID-19 GERIATRIC COHORT: A RETROSPECTIVE REPORT

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INTRODUCTION: SARS-CoV-2 infection was first described in December 2019 in Wuhan, China and in few months spread worldwide. The pandemic reached Italy in late February 2020 and caused more than 35.000 deaths (June 2020). Although the pathophysiology is still not clear, accumulating data suggest that in some cases, COVID-19 is associated with a marked alveolar inflammatory cells infiltrate, together with a cytokine storm response. In addition, several studies show evidence of a COVID-19 associated coagulopathy, in particular there are post-mortem findings of marked pathological changes involving lung microvasculature, including disseminated microthrombi and significant hemorrhagic necrosis. The introduction of heparin in patients with severe COVID 19 seems to be associated with a better prognosis in relation to mortality. Probably, this is due not only to its anticoagulant property but also to its anti-inflammatory property: heparin could decrease the level of inflammatory biomarkers, even if research in this field is still evolving. The aim of our study is to evaluate the influence on mortality using thromboprophylaxis with Low Molecular Weight Heparin (LMWH) in a cohort of geriatric patients with COVID-19.

METHODS: Consecutive patients diagnosed with COVID-19 admitted to the Geriatric Department of Trieste Hospital (Azienda Sanitaria Universitaria Giuliano Isontina, Italy) from March 10th to June 13th 2020 were retrospectively enrolled. Patients' mortality was followed up until July first. Exclusion criteria were hospital stay <5 days, lack of clinical and laboratory data, therapeutic anticoagulant treatment during hospitalization and age <65 years. SARS-CoV-2 positivity was confirmed by viral RNA detection with nasopharyngeal swab. The heparin treatment group was defined by receiving prophylactic dose of LMWH for 5 days or longer.Categorical variables were compared using the chi-squared test, while normally distributed quantitative variables were compared using Student's T-test. The results were given as the mean (± standard deviation), median (interquartile range), or number (percentage), wherever appropriate. Data on mortality between the heparin users and non-users group were evaluated with Logrank test and Kaplan Meier curves. A p-value<0,05 was considered statistically significant.

RESULTS: A total of 53 patients, 29 males and 24 females, were enrolled into the study form 115 confirmed COVID-19 cases admitted in our departement, with a median age of 83 +/- 7,6 yrs. By July first 2020 overall mortality was 53%, with no differences between genders. All of them had one or more chronic disease, mainly cardiovascular disease (60,4%), diabetes (30,1%) and chronic kidney disease (41,5%). Thirty-two patients had a Cumulative Illness Rating Scale (CIRS)>=3; of these 20 died and 12 survived with a statistical difference near to significativity (p=0,05).Thirty-three patients(62%) of our cohort received weight and renally-appropriate dose of LMWH (20-60 mg/daily); no anticoagulant other than LMWH was used. The remaining patients did not receive heparin or other anticoagulant treatment. The coagulation parameters (platelets count and INR) and comorbidity were similar between groups. Kaplan Meier curves showed a difference in survival between heparin users and non-users (p=0,01).

CONCLUSIONS: In our report we observed that patients who received prophylactic LMWH treatment for more than 5 days had a higher survival rate and this is consistent with the emerging literature about COVID-19 treatments. This findings deserve further studies and analysis to be confirmed. The major limitations of our study are represented firstly by the restricted number of subjects included and also by the potential selection bias; besides, heparin treatment tends to be used in patients at risk of thrombotic complications and according to their medical history and comorbidities.

HYPERKINETIC DELIRIUM AND TAKO-TSUBO SYNDROME. DESCRIPTION OF A CLINICAL CASE

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AIM: We describe a clinical case of association between the Tako-Tsubo cardiomyopathy and delirium.

METHODS: Female, 80 years, hypertensive cardiomyopathy, atrial fibrillation, few months ago hysteroannessiectomy complicated by cardiac failure with pericardial effusion. In the last month reported progressive psycho-organic decay with reduction of autonomy in instrumental (IADL) and basic (BADL) activities of daily living, behavior disorders onset such as psychomotor agitation, delirious poisoning, rejection of therapy. The hospital admission was due to hyperkinetic delirium. During the hospitalisation she developed dyspnea and syncope, associated with electrocardiographic abnormalities (T wave inversion in leads V1-V6, DI-II-III, aVL, aVF; QT prolongation – 648 ms). Apical hypokinesia with severe left ventricular failure (ejection fraction-EF 35-40%) was present at the transthoracic echocardiography. Blood tests revealed cardiac enzymes increase (troponin values 4284 ng/l, CK-MB 7,70 ng/ml, BNP 1379 pg/ml). The other exams excluded myocarditis, pneumonia, SARS-CoV-2 infections. Neuroimaging did not show acute ischemic lesions but only microvascular chronic pathology. She was treated with beta-blokers, ACE-inhibitors, and diuretics. After 5 days transthoracic echocardiography was performed again and showed regression of segmental wall motion abnormalities, with normalization of the EF values (55%). A chronic, ubiquitary pericardial effusion was also shown. She was discharged after 28 days, in a nursing home, asymptomatic with normal cardiac enzymes. The comprehensive geriatric assessment revealed a complete dependence in BADL (2/6) and IADL (0/8). The Short Portable Mental Status Questionnaire was 6/10 with a suspect of major neurocognitive disorder onset.

RESULTS: Clinical and instrumental investigations orient towards a Tako-Tsubo syndrome (TTS) in a patient with hyperkinetic delirium. During the hospitalisation we have gradually witnessed a behavioural symptoms improvement linked to a higher assistance and an adequate hydration and nutrition. Pre-discharge echocardiogram showed: recovery of global systolic function (EF: 55%), with regression of segmental kinetic alteration.

CONCLUSION: TTS, also called the broken heart disease, was described for the first time in 1991. There is general consensus that the common etiologic feature is sudden emotional/physical stress causing a surge in catecholamine levels that induced a stress cardiomyopathy characterized by transient apical ballooning (microvascular spasm/dysfunction or direct catecholamine-associated myocardial toxicity). The impaired microvascular reactivity is selectively localized at the level of the mid and apical segments of the left ventricle. It mainly affects postmenopausal women, and with its clinical presentation, ECG changes and elevated laboratory values, mimics an acute coronary syndrome (ACS), without coronary artery lesions. The prevalence is between 1-2% in patients presenting to the hospital with suspected ACS; but the prognosis is more favourable. In our case, the chronology of events, suggests that hyperkinetic delirium (a major emotional stress trigger in a geriatric patient) induced TTS. This clinical case reinforces the role of delirium as a negative event in geriatric patients and describes a new complication of this common geriatric syndrome.

TELEMEDICINE MANAGEMENT OF OLDER PEOPLE AT RISK OF OSTEOPOROTIC FRACTURES DURING COVID-19 PANDEMIC

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INTRODUCTION: Osteoporotic fractures are a leading cause of morbidity and loss of functional independence in older people. Continuous medical interventions are necessary to limit the risks of bone loss and fracture occurrence. Moreover, delaying the administration of some osteoporosis drugs can increase bone turnover and fracture risk. During COVID-19 pandemic, the redirection of the resources against this global threat and the social distancing strategies have introduced challenges in the management of osteoporosis. In this contest, we searched to provide the best care possible by developing a telemedicine management program for older people at risk of osteoporotic fractures.

METHODS: From March 16 to July 07, 320 patients were contacted by phone 10 days prior to their scheduled visit. They were informed that an e-visit was possible, and were asked to email their queries and the results of their exams. The possibility of a 2 way video interaction, using a dedicated connection, was also offered through a dedicated electronic system (jiitsi meet/Galliera). The densitometric scan (DXA) and the specific blood chemistry tests of bone metabolism, if not performed before the lock-down, were replaced by clinical history and fracture prediction tools. A specific on-line questionnaire was elaborated to this purpose.

RESULTS: All 320 patients have replied (mean age 76.7 years; 9% males). Older patients who didn't have an email address or internet access were supported by relatives or friends. No one referred COVID-19 infection. Of the 138 vitamin D serum dosages received, nobody presented vitamin D deficiency. Due to the lock-down, the infusions of zolendronic acid were not possible and the shift to other bisphosphonates was advised in 20 cases. 25 patients had temporally interrupted their pharmacologic treatment to prevent osteoporosis and were encouraged to continue. Patients in denosumab or teriparatide treatment were monitored and further instructions to execute their subcutaneous therapy were offered, when necessary, through video interaction. All patients were advised to continue a diet rich in calcium, so as to reduce the risk of ipocalcemia due to anti-fracture therapy. Medical report, receipts for drugs and a new follow-up date were sent by email in order to guarantee the medical assistance.

CONCLUSIONS: This telemedicine management program was well accepted by older patients and improved adherence to treatments in order to reduce the risk of osteoporotic fractures. In the era of COVID-19 pandemic, e-visits represent a bridge between health care providers and patients. In addition, they ensure an effective care focused on the needs of older people with chronic diseases or disabled.

FRAILTY AND SOCIAL VULNERABILITY IN COMMUNITY-DWELLING OLDER SUBJECTS

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INTRODUCTION: Recently an increasing number of studies has approached frailty within a non-biological framework, offering evidences of the influence of social factors in the onset of frail conditions (Etman *et al.*, 2012). In particular, Gale, Westbury e Cooper (2018) suggest that loneliness is associated to the development of frailty among older people. Researches underline the negative effects that social marginality and isola-

tion can have on physical and mental health (*e.g.* cardiovascular disease, cognitive decline, depression) (Cornwell & Waite, 2009; Li & Zhang, 2015). The aim of the present study was to evaluate the association between frailty and social vulnerability in a sample of 1354 community-dwelling aged 65 years and older subjects.

MATERIALS AND METHODS: This contribution presents the first results of an extensive action research aimed at preventing risks associated with frailty and social vulnerability in older people living in Genoa, a town with one the highest ageing index in Europe. This project is divided into several phases that involve screening tests to identify subjects in frailty and social vulnerability conditions, activities to raise awareness about the health risks associated with these conditions, specialist examinations and paths of social inclusion.Data were collected through a 30-minute self-report questionnaire, including sociodemographic data, SELFY-MPI (Pilotto *et al.*, 2019) and specific validated tools to assess social vulnerability (Cornwell & Waite, 2009) and perceived isolation (Andrew, Mitnitski & Rockwood, 2008). A trained university student was available for any questions that arose while subjects filled out the questionnaire.

RESULTS: 18,4% of subjects with higher level of social vulnerability is at risk of mortality on SELFY-MPI compared to 0,4% of subjects with lower level. Moreover, 14,6% of subjects with greater than average level of perceived isolation is at risk of mortality on SELFY-MPI compared to 8,3% of subjects with lower than average level. Both differences are significant ($p<0.000$).

CONCLUSIONS: Social vulnerability Index and Perceived Isolation Index are associated with risk of mortality assessed with SELFY-MPI.

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THE "ANZIANO E COVID-19" WEBSITE FORUM: A SIGOT RESOURCE DEVELOPED TO IMPROVE INTERACTION AMONG PROFESSIONALS, OLDER PEOPLE AND THEIR CAREGIVERS DURING THE COVID-19 PANDEMIC

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INTRODUCTION: The COVID-19 pandemic has completely changed our lives. In this new context an appropriate and accurate information is a concrete resource for the development of new approaches to the clinic, management and care of the older people and a useful support for their caregivers. The "Anziano e COVID-19 Website Forum" was promoted and developed by the Italian Society of Geriatrics Hospital and Territory (SIGOT) in order to collect and disseminate scientific information to the scientific community, geriatricians, but also for older people, their family and caregivers involved in the COVID-19 pandemic. Aim of this study was to present the overall structure of the "Anziano e COVID-19" Website Forum and its contents.

METHODS: The Forum is organized in 10 topical sections: scientific articles, health professional training, COVID-19 institutional guidelines, ongoing studies, local organizational and clinical experiences, health for older people and their caregivers, cultural and scientific entertainment for citizens, residential care homes, centers for cognitive diseases and dementia, interviews and articles by SIGOT members. The overall structure of the Forum is managed only by the Forum's administrators. All information published was proposed by SIGOT members and its publication followed the evaluation and approval by an operating staff of expert geriatricians designated by the SIGOT Scientific Director.

RESULTS: From April 17 to July 7, 2020 a total of 46 post were published. The "Scientific articles" section was the most updated section (17 scientific articles with the link to the WEB page and its source) followed by the "interviews and articles by SIGOT members" (6 post), "Centers for cognitive disorders and dementia" and "local organizational and clinical experiences" sections (5 post each). The Forum received a total of 10.791 views: 3.369 scientific articles section, 1.978 interviews and articles by SIGOT members, 1.134 centers for cognitive diseases and dementia, 989 COVID-19 institutional guidelines, 870 ongoing studies, 865 health professional training 791 local organizational and clinical experiences, 492 health for older people and their caregivers and 303 residential care homes.

CONCLUSIONS: The "Anziano e COVID-19" Website Forum contains reliable and easily accesible information for the scientific community but also for community dwelling older people and their caregivers involved in the COVID-19 pandemic.

THE SELFY-MPI SHORT-FORM: A SELF-ADMINISTERED FRAILTY SCREENING TOOL IN PRIMARY CARE

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INTRODUCTION: In primary care a reliable screening test to

identify older subjects at risk of frailty to adopt intervention and prevention strategies are needed. The Multidimensional Prognostic Index (MPI) is a validate prognostic tool to predict negative health outcomes in older people. Recently, a self-administered version of the MPI (SELFY-MPI-SF) has been developed and validated in community-dwelling older people. Aim of the study was to evaluate feasibility and accuracy of the SELFY-MPI-SF in primary care setting.

METHODS: A training course on methods and clinical value of the MPI was held by 24 geriatricians to about 300 General Practitioners (GPs) throughout in Italy. All participant GPs recruited older patients who fullfilled the SELFY-MPI-SF questionnaire to explore mobility, basal and instrumental activities of daily living (Barthel mobility, ADL IADL), cognition (Test Your Memory-TYM Test), nutrition (Mini Nutritional Assessment-Short Form-MNA-SF), comorbidity, medications, and co-habitation.

RESULTS: 178 eligible patients were enrolled, mean age=79±7.06 years, range 66-97 years, male/female ratio=0.81. 73.6% of patients were from North Italy, 22.5% from South Italy and 3.9% from Central Italy. The mean value of the SELFY-MPI-SF was 0.27 (range 0-0.75). The large majority of patients was categorized in MPI 1 (low-risk) category (=73.6%), followed by MPI 2 (18.0%) and MPI 3 (8.4%). A significant correlation between MPI and age was observed (Pearson coefficient=0.55, p<0.0001).

CONCLUSIONS: The SELFY-MPI-SF (Short Form) is a feasible and accurate multidimensional tool for the screening of older patients at risk of frailty, easy to integrate into routine clinical practice in primary care.

A SELF-ADMINISTERED SCREENING TOOL TO IDENTIFY OLDER PEOPLE AT RISK OF FRAILTY: A FEASIBILITY STUDY IN PRIMARY CARE SETTING (THE SELFY-MPI SIGOT STUDY)

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INTRODUCTION: Early identification of older people at risk of frailty would be useful in primary care. Indeed, General Practitioners (GPs) play a crucial role in identifying older people who are at risk of frailty in order to adopt prevention strategies and appropriate clinical interventions. The Multidimensional Prognostic Index (MPI) is a CGA-based tool able to predict negative health outcomes in older people; it is recognized as one of the most commonly used tool to identify and measure frailty in older people. Recently, a self-administered version of the MPI Short-Form (SELFY-MPI-SF) has been developed and validated in community-dwelling older people. Aim of the study was to implement the self-administered SELFY-MPI-SF in primary care setting.

METHODS: The project included three operational phases. In the first phase of the project, an advanced training course on methodology and clinical value of the MPI and the SELFY-MPI involved expert geriatricians from all regions of Italy in a two-day theoretical and practical meeting. In the second phase the trained geriatricians organized a one-day training course involving GPs throughout in Italy: each meeting included a mean of 20 GPs, for a total number of about 350 GPs involved in the project. During the course the CGA-based MPI and the SELFY-MPI-SF questionnaire and its implementation have been introduced in order to let the interested GPs to take part into the study. In the third phase of the project, the SELFY-MPI-SF questionnaire was filled out by consecutive older patients who were admitted to their GP's ambulatory. The SELFY-MPI-SF questionnaire include self-reported information on: 1) basic and instrumental activities of daily living (ADL IADL); 2) mobility (Barthel Index); 3) cognition (Test Your Memory-TYM Test); 4) nutrition (Mini Nutritional Assessment-Short Form-MNA-SF); 5) co-morbidity (Cumulative Index Rating Scale, CIRS); 6) number of medications and 7) co-habitation status.

RESULTS: The study obtained the approval by the Central Ethics Committee of the Liguria Region (Italy). The first two-days training course on methods and clinical value of the MPI was attended by 24 expert geriatricians; they held 18 one-day training courses to 300 GPs though-out Italy. 121 GPs agreed to take part into the study and were actively involved in the project receiving an average of 10 SELFY-MPI-SF questionnaires each. Since a great interest for the SELFY-MPI-SF as reliable screening test able to identify older subjects at risk of frailty was reported by several GPs, other training editions were scheduled before the spread of COVID-19. Between December 2019 and February 2020, 180 SELFY-MPI-SF were fulfilled by 180 older patients: 73.6% of patients were from North Italy, 22.5% from South Italy and 3.9% from Central Italy.

CONCLUSIONS: The self-administered SELFY-MPI-SF (Short Form) showed to be a feasible and well-accepted in primary care setting as a screening test to identify older subjects at risk of frailty. Moreover GPs appreciated this screening tool easily integrated into routine clinical practice in primary care.

IMPLEMENTATION OF THE SELFY-MPI TO STRATIFY VULNERABLE COMMUNITY-DWELLING PEOPLE: THE EU CO-FUNDED EFFICHRONIC PROJECT

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BACKGROUND: EFFICHRONIC is a EU co-funded project aimed to enhance health systems' sustainability by providing effective interventions of self-management for patients with chronic conditions in five European Countries (France, Italy, Spain, The Netherlands, United Kingdom). In this context, a self-administered version of the Multidimensional Prognostic Index (SELFY-MPI) was developed and validated to stratify community-dwelling people with different risk of physical and cognitive

impairments and /or socioeconomic vulnerability. Aim of this study was to describe data of the implementation of the SELFY-MPI questionnaire in community-dwelling people who underwent a self-management program to improve management of their chronic diseases.

METHODS: The SELFY-MPI is a multidimensional tool that explores mobility, basal and instrumental activities of daily living (Barthel mobility, ADL IADL), cognition (Test Your Memory-TYM Test), nutrition (Mini Nutritional Assessment-Short Form-MNA-SF), comorbidity, medications, and socio-economic status (social-familiar evaluation scale-SFES). Subjects were stratified according to SELFY-MPI score in low risk (0–0.33), moderate risk (0.34-0.66) and high risk (0.67-1).

RESULTS: A total of 1273 of subjects from five European Countries (mean age 61.8±14.7 years, range 20-94 years; females=63%) filled the SELFY-MPI. The mean value of the SELFY-MPI was 0.22±0.15 (range: 0.06-0.88). Most of participants were in the low-risk group (83.9%): 14% and 2.1% were in the moderate-risk and high-risk groups, respectively. A significant correlation between SELFY-MPI and age was observed ($r=0.125$, $p<0.0001$).

CONCLUSIONS: This ad-interim analysis demonstrated a good implementation of the SELFY-MPI to stratify community-dwelling people of different ages at risk for physical and cognitive impairments and/or socioeconomic vulnerability.

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