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# Geriatric Care

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## ORAL COMMUNICATIONS

### RISK STRATIFICATION OF ACQUIRED LONG QT SYNDROME IN ACUTE GERIATRIC SETTINGS: TISDALE SCORE AND RISQ-PATH SCORE COMPARISON

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**INTRODUCTION:** In the following work, two scores for the risk stratification of acquired long QT born and developed in the cardiology field, the Tisdale score of 2013 and the RISQ PATH score of 2018, are tested and compared with each other on a cohort of acute geriatric patients.

**PURPOSE:** The aim of this study is therefore to verify the reliability of the two scores in a never-before-tested age group in which the high incidence of electrolyte disorders, chronic organ failures, inflammatory states and the frequent simultaneous use of classes of drugs that prolong the QTC allow to justify the introduction of algorithms to standardize and protect the clinical decision-making process.

**MATERIALS AND METHODS:** A prospective observational study was carried out by examining 243 patients attending the Geriatrics Operating Unit of the Santa Maria della Scaletta Hospital in Imola. The inclusion criteria were: a hospital stay of at least 5 days, the execution of a 12-lead ECG at admission and on the fifth day of hospitalization, the possibility of obtaining all the anamnestic and laboratory data under study. The independent predictors used in the Tisdale score and in the RISQ PATH score and the value of the manually corrected QT according to Bazett present in the 12-lead ECG 25 mm/s performed at admission and on the fifth day of hospitalization in the ward were entered into a database. The Tisdale score was taken into account for sex, home diuretic intake, potassium, QTC greater than or equal to 450 msec on admission electrocardiogram or on 5 days, presence at admission of acute myocardial infarction, sepsis, heart failure, number of drugs taken at home class I CredibleMeds. For the RISQ-PATH score, sex, BMI, positive medical history for chronic heart disease, presence of cardiac arrhythmias, a QTC on admission or on the fifth day greater than 450 msec in men and 470 msec in women, calcemia, advanced chronic renal failure, number of home drugs class 1 and 3 of the CredibleMeds list were collected. Subsequently, each subject was assigned a numeric value of Tisdale score and RISQ-PATH score consisting of the sum of the individual scores attributed to the various risk factors found.

**RESULTS:** Among the risk factors used in the Tisdale and RISQ PATH scores in our case series, a statistical correlation is confirmed between sex, use of diuretics, chronic heart disease, arrhythmias, use of drugs in class 1 of the CredibleMeds list, hypokalemia, acute heart failure and sepsis upon admission to the department. However, there is no significance for the other factors examined, in some cases also due to their poor representation (liver failure, hypocalcemia). Both scores are finally strongly correlated-

statistically with QTC prolongation. The scores are positively associated. The relationship between the scores is linear, as demonstrated using lowest plots and fractional polynomials. Overall, the RISK-PATH score is more performing than the Tisdale score in our sample of patients.

**CONCLUSIONS:** Our study confirms the possibility of using the two scores in the clinical practice of an acute geriatric department given their more than convincing reliability in discriminating the risk of onset of A-LQTS. When tested for calibration, the two tests prove to be performing, in particular, an infrequent excellent intrinsic applicability of the RISK-PATH score was observed.

### COMPARING TWO DIFFERENT MODELS OF CARE FOR HIP FRACTURE PATIENTS: ORTHO-GERIATRIC CO-MANAGEMENT MODEL AT BAGGIOVARA HOSPITAL VS. TRADITIONAL ORTHOPEDIC-LED MODEL WITH GERIATRIC CONSULTATION AT MIRANDOLA HOSPITAL

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**INTRODUCTION:** Hip fractures in older adults constitute a major public health concern, associated with high rates of morbidity, loss of functional independence, and 30-day mortality exceeding 10%. In recent years, orthogeriatric co-management models—characterized by structured interdisciplinary collaboration among geriatricians, orthopedic surgeons, anesthesiologists, and physiatrists—have emerged as the gold standard for the perioperative management of frail elderly patients. Nonetheless, their implementation remains inconsistent across healthcare systems.

**OBJECTIVES:** This study aimed to compare two perioperative care models for elderly patients with hip fractures: a orthogeriatric co-management model, implemented at Baggiovara Hospital, and a traditional orthopedic-led model with geriatric consultation on request, in use at Mirandola Hospital. The goal was to evaluate which model offers superior clinical and functional outcomes.

**METHODS:** This retrospective multicenter cohort study included 200 patients admitted with hip fractures to the Orthogeriatrics Unit at “Nuovo Ospedale S. Agostino-Estense” in Baggiovara between May 2023 and March 2024 (Group 1), and 100 patients treated under standard orthopedic care with on-demand geriatric consultation at Mirandola Hospital between March 2024 and December 2024 (Group 2). Data collected included demographic characteristics, clinical comorbidities, baseline cognitive and functional status, intraoperative and perioperative management, time to surgery, incidence of complications (with a focus on delirium), time to mobilization, 30-day postoperative mortality, and rehabilitation pathways.

**RESULTS:** Baseline characteristics—including nutritional, cognitive, and functional status—were comparable across both

cohorts and indicative of a pre-frail to frail population. Intramedullary nailing was the most commonly performed procedure in both centers, with a higher rate of hemiarthroplasty in the orthogeriatric setting. Regional anesthesia was more frequently utilized in Baggiovara, where femoral nerve block was also routinely performed (42.3% vs. 3.4%), reflecting a more structured analgesic protocol. Group 2 (traditional model) showed some logistical advantages, such as a shorter time to surgery (within 48 hours in 66.7% of cases vs. 45% in Group 1) and a lower incidence of urinary tract infections (12.6% vs. 23.1%,  $p < 0.05$ ), likely related to shorter catheter duration (4.7 vs. 5.5 days). However, the orthogeriatric model (Group 1) was associated with significantly better clinical outcomes. Perioperative delirium occurred in 22.1% of patients in Baggiovara versus 38.6% in Mirandola ( $p < 0.05$ ). Early postoperative mobilization within 48 hours was significantly more frequent in Group 1 (81.4% vs. 52.5%,  $p < 0.05$ ), suggesting more effective multidisciplinary coordination. Most notably, 30-day postoperative mortality was significantly lower in the orthogeriatric group of Baggiovara (6.2% vs. 13.8%,  $p < 0.05$ ).

**CONCLUSIONS:** This study highlights the clinical value of orthogeriatric co-management in improving outcomes for older adults with hip fractures. While the traditional orthopedic-led model showed some organizational strengths, the orthogeriatric approach resulted in superior functional recovery, lower short-term mortality, and greater adherence to evidence-based geriatric care principles. The wider implementation of structured orthogeriatric models should be prioritized by healthcare systems facing the challenges of an aging population. Such models support a patient-centered, holistic approach that enhances safety, preserves autonomy, and promotes better long-term outcomes.

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2. Emilia-Romagna Region. Guidelines for the integrated care of elderly patients with hip fractures, 2013.

### ELDERLY PEOPLE IN EMERGENCY DEPARTMENT: JOINT MANAGEMENT BY EMERGENCY AND GERIATRIC TEAMS

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**INTRODUCTION:** The aging of the global population and the increasing number of frail older adults accessing Emergency Departments (ED) have made it necessary to develop new management and organizational models within Emergency-Urgency Departments (DEU).

**OBJECTIVES:** To implement a multiprofessional organizational model for the care of frail elderly patients accessing the ED who require a short observation period to define a diagnosis and an appropriate care setting.

**MATERIALS AND METHODS:** Since January 2024, at the DEU of the IRCCS Sant'Orsola Polyclinic in Bologna, 9 beds have been dedicated to short-term observation for patients identified as frail based on age  $\geq 65$  years and a Triage Risk Screening Tool (TRST) score  $\geq 2$ . Patients requiring surgical and/or intensive care were excluded. Five days a week, a dedicated team of emergency physicians collaborates with the Continuity of Care Team (ECA), composed of a geriatrician, a nurse specialized in transitional care, and a social worker. The two teams jointly select patients for ECA intervention, which includes: identifying and treating geriatric syn-

dromes, reviewing polypharmacy, assessing functional, cognitive, and social status, addressing caregiver needs, involving physiatry/physiotherapy and the palliative care network, initiating social interventions including Complex Multidimensional Evaluations (UVMc), prescribing mobility aids, and providing nutritional recommendations. Within the first 72 hours of ED admission, the most appropriate care pathway is defined. This typically includes three care settings: 1. Home or residential facility discharge, with activation of the necessary social-health services for protected discharge; 2. Acute medical ward admission (preferably one of three designated hospital wards: one for patients aged 65–74, two geriatric units for patients aged  $\geq 75$ ); 3. Admission to a geriatric-managed intra-hospital post-acute care unit (PACA).

**RESULTS:** From February 1 to July 31, 2024, we examined 849 patients (301 men and 548 women). Eighteen patients admitted to the observation unit were excluded from the analysis due to a TRST  $< 2$  or age  $< 65$ . Approximately 93% of patients were over 75. The average TRST score was 4. Main reasons for ED admission were: infections (24%), cardiovascular issues (15%), delirium/dementia (11%), and trauma (10%). The ECA intervened in 409 cases (48%). Care settings: Among 440 patients not received ECA intervention, 314 (71%) were admitted to an acute medical ward, 101 (23%) were discharged home or returned to their residential facility, 1 (0.23%) was deemed suitable for post-acute care. Among 409 patients who received ECA intervention, 204 (50%) were admitted to an acute medical ward, 161 (39%) were discharged home or returned to their residential facility, 40 (10%) were deemed suitable for post-acute care. The remaining percentages were due to deaths and voluntary discharges. A total of 63 UVMc were conducted, and 7 patients were discharged to residential care homes (CRA). In the three dedicated acute care wards, the average length of stay was 12.5 days for patients not evaluated by the ECA, and 11.7 days for those who were. Among patients discharged home or to a facility, re-hospitalization rates at 1, 3, and 6 months were: Non-ECA group: 8%, 17%, and 21%, respectively; ECA group: 6%, 12%, and 19%, respectively.

**CONCLUSIONS:** Frail elderly patients require a dedicated organizational and care model within the ED. Preliminary data from our study suggest that, within the first 72 hours of ED access, joint management by emergency and geriatric teams promotes patient return to home settings, ensures appropriate care pathways, enables access to post-acute and residential care, and reduces both length of stay and re-hospitalization rates up to 6 months after the initial event.

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### NEW-ONSET POSTOPERATIVE ELECTROCARDIOGRAPHIC ABNORMALITIES IN OLDER ADULTS UNDERGOING HIP FRACTURE SURGERY: ASSOCIATION WITH NEUROLEPTIC USE

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**BACKGROUND:** Electrocardiographic (ECG) changes are commonly observed in the postoperative period in elderly patients undergoing surgery for hip fracture. However, the underlying

mechanisms and their clinical and prognostic impact remain poorly understood.

**OBJECTIVES:** To analyze the frequency and types of new-onset ECG abnormalities on the first postoperative day following surgery for femoral fracture in older adults ( $\geq 65$  years), and to identify possible predisposing factors and related clinical implications.

**METHODS:** This study included 256 consecutive patients aged  $\geq 65$  years, admitted between May 1 and December 31, 2024, to the Orthogeriatrics ward with a proximal femoral fracture. A preoperative and postoperative (day 1) ECG was performed, and new abnormalities were recorded. Comprehensive Geriatric Assessment (CGA) including clinical, functional, cognitive, psychological, and social assessments were carried out. Associations between ECG changes, major perioperative cardiovascular complications, and 6-month mortality were analyzed using univariate and multivariate statistical methods (Chi-square test, ANOVA, logistic regression).

**RESULTS:** The mean age was  $84.8 \pm 7.7$  years; 73.8% were female. Functional independence was preserved in 56.9% (ADL  $> 4$ ), and 43.7% maintained good instrumental autonomy (IADL  $> 6$ ). Moderate-to-severe cognitive impairment (SPMSQ  $> 4$ ) was present in 21.4%, and 55.2% were classified as severely frail (CFS  $> 7$ ). The main postoperative cardiovascular complications were heart failure (17.2%), arrhythmias requiring specific pharmacological treatment (6.3%), and acute coronary syndromes, which occurred in only 0.4% of cases. New-onset postoperative ECG abnormalities were detected in 69% of patients. Arrhythmic changes occurred in 36%, and ischemic abnormalities in 51%. The most common findings were: • Arrhythmias: tachycardia (24.5%), prolonged QTc  $> 480$  ms (23%), bradycardia (1.2%), bundle branch blocks and AV blocks (1.2%), new-onset atrial fibrillation (0.9%), • Ischemic changes: flattened T waves (23%), T wave inversion (14%), ST depression (4.3%), ST elevation (1.6%) and Q waves (1.6%). Univariate analysis showed a strong association between chronic neuroleptic use and both new-onset arrhythmias ( $p=0.000$ , especially tachycardia) and postoperative QTc prolongation ( $p=0.045$ ). Postoperative delirium and a history of dementia were also significantly associated with arrhythmic changes ( $p=0.032$  and  $p=0.043$ , respectively). Arrhythmic abnormalities were further associated with postoperative heart failure ( $p=0.001$ ) and reduced IADL ( $p=0.008$ ), though they were not linked to increased 6-month mortality. Ischemic abnormalities, despite their frequency, were not associated with any of the examined predisposing factors, cardiovascular complications, or 6-month mortality. Multivariate linear regression identified chronic neuroleptic use as the strongest independent predictor of postoperative arrhythmias ( $p=0.004$ ), with a fourfold increased risk.

**CONCLUSIONS:** Postoperative ECG abnormalities are common among older adults undergoing surgery for hip fracture. Arrhythmic changes, in particular, are associated with a higher incidence of postoperative heart failure. Chronic neuroleptic use emerged as the main independent risk factor for developing new-onset arrhythmias. Further studies are needed to clarify the role of intraoperative medications and hemodynamic factors in the pathogenesis of postoperative ECG abnormalities.

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#### DEMOTIC (DEMENTIA TOPICS CARTOON)

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La demenza è una particolare condizione che nelle sue espressioni sintomatologiche coinvolge un sistema molto ampio, che riguarda non solo la persona che vive con demenza stessa ma anche tutta la famiglia, gli affetti nonché tutto lo staff di “care” che ne consegue. La demenza entra in maniera dirompente alterando equilibri e dinamiche con importanti ripercussioni sulla qualità della vita di tutti i soggetti coinvolti. È per questo che si vuole provare a proporre contenuti sul tema accessibili a tutte le età. Sensibilizziamo e avviciniamo quanta più popolazione al tema dell’invecchiamento e della demenza attraverso un cartoon (strumento che vuole essere formativo, educativo ed inclusivo) aiutati dalle stesse persone che vivono con demenza che ne sono le voci protagoniste dei personaggi assieme a prestigiosi nomi del mondo della “care”.

**METODI:** Coinvolgimento delle persone che vivono con demenza di livello lieve di meeting center italiani e di professionisti della “care” nella stesura di sceneggiature e nella registrazione vocale dei dialoghi. Realizzazione del cartoon da parte di uno studio grafico. Diffusione del cartoon attraverso la partnership di società scientifiche e i media. Studio sull’impatto del cartoon attraverso un questionario on-line a distanza di un’anno.

**RISULTATI ATTESI:** Entro settembre 2024 produzione di 2 episodi del cartoon e iniziale distribuzione nel territorio nazionale e internazionale attraverso le società scientifiche nazionali e i media. Maggior consapevolezza sul tema della persona anziana che vive con demenza e sulle possibili situazioni ad essa correlate. Entro settembre 2025 dati sull’impatto del cartoon.

#### PERSONALIZED NUTRITION AFTER DISCHARGE FOR PANCREATIC SURGERY: PRELIMINARY RESULTS IN A PROSPECTIVE COHORT OF 75 RESECTED PATIENTS

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**BACKGROUND:** Nutritional interventions play a critical role in patients candidate to pancreatic surgery. Despite being included in the prehabilitation items of ERAS protocols, nutritional recommendations concerning post-discharge period are lacking. Aim: To assess the feasibility of a personalized and standardized food plan (PFP) after pancreatic surgery.

**METHODS:** A prospective study enrolled patients candidate to pancreatic resection; biochemical preoperative data and radiological imaging were collected. Body composition, nutritional, muscular

lar, and hydro-electrolyte status are assessed with bio-impedance analysis (BIA). Patients received a PFP after discharge for the following 45 days. A questionnaire on feasibility of the proposed diet has been administered.

**RESULTS:** During 2024, 122 patients candidate to pancreatic surgery were prospectively screened: 25 did not undergo resections. Out of 97 resected patients, 10 did not receive the PFP for several reason (3 persistent POPF; 2 chylous fistulas; 2 elderly transferred to Medical Department; 2 inability to resume oral alimentation, 1 hospital mortality). Out of 87 patients discharged with PFP enrolled, 12 did not answer to the follow up questionnaire (8 drop out; 2 readmissions to hospital; 2 quick progressive disease). 75 patients were considered for the final analysis. The PFP was considered feasible by 69 (92%). 17 out of 20 patients candidate to adjuvant chemotherapy started it within 6 weeks from discharge (85%).

**CONCLUSIONS:** a personalized food plan based upon body composition analyzed with BIA is feasible in a cohort of patients undergone to pancreatic resection for neoplasms; it could improve chemotherapy adherence.

### **NARANJO'S SCALE AND IDENTIFICATION OF POLYMYALGIA RHEUMATICA AS ADVERSE DRUG REACTION IN ELDERLY CANCER PATIENTS FOLLOWING IMMUNOTHERAPY WITH NIVOLUMAB AND PEMBROLIZUMAB: A SYSTEMATIC REVIEW OF PUBLISHED CASE REPORTS**

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**BACKGROUND:** Polymyalgia rheumatica (PMR) is estimated to be older adults' most common inflammatory rheumatic disease. Since 2011, when ipilimumab was first approved for metastatic melanoma, the number of cases of cancer patients diagnosed as having immune check point inhibitor-mediated polymyalgia rheumatica (ICI-PMR) (especially following treatment with nivolumab and pembrolizumab), have been steadily rising in published reports. We performed a systematic literature review of published case reports, with the objective of assessing if the Naranjo's scale was used when ICI-PMR was diagnosed as an ADR.

**MATERIALS AND METHODS:** We conducted a systematic review based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. This systematic review has no registration number. A comprehensive literature search in three main bibliographic databases: MEDLINE (Ovid interface), EMBASE, and COCHRANE Library was carried out on 27 December, 2024. The following main search terms were used: polymyalgia rheumatica, immune checkpoint blockade, rheumatic syndromes, checkpoint inhibitors therapy, polymyalgia rheumatica-like syndromes, immunotherapy, checkpoint inhibitor-associated polymyalgia rheumatica, anti-PD1, anti-PD1 antibody, and anti-programmed death 1 monoclonal antibody - both MESH headings and free text. Conference abstracts, comments, and secondary articles were excluded. The presence of the giant cell arteritis (GCA) was an additional exclusion criterion, unless all data concerning GCA were clearly distinct from PMR findings. GCA is a large-vessel vasculitis potentially associated with PMR. However, GCA has a neoplastic risk in itself, and assessing these patients together may lead to methodological bias, notably with regard a more frequent association with cancer. Non-English lan-

guage reports with no English abstract were excluded. Additionally, we excluded case reports when nivolumab or pembrolizumab was used in association with other ICIs (so-called "combo therapy"), and when used in unapproved conditions. Finally, we excluded case reports with low quality according to the 2007 International Society for Pharmacoepidemiology (ISPE) and International Society of Pharmacovigilance (ISoP) guidelines.

**RESULTS:** 12 patients with PMR following immunotherapy with nivolumab and pembrolizumab were included. Namely, 5 patients followed treatment with nivolumab and 7 with pembrolizumab. Nine patients were males. In only two cases, the Naranjo's scale was used. Additionally, in one of these two cases, the authors calculated a Naranjo's total score of 8 for the association PMR-pembrolizumab. However, when we recalculated this score using the same data as in the report, the final result was 5 (questions no. 4 and no. 5 had not been correctly scored). In all other reports, clinical judgment alone was used. When, using reported data, we were able to apply the Naranjo's scale, no definite ADR cases were found. In 1/3 of cases, such identification was categorized as possible or doubtful.

**CONCLUSIONS:** To date, clinical judgement alone is unappealable criterion in almost all published case reports of ICI-PMR following treatment with nivolumab and pembrolizumab.

### **MPI AND PRESSURE ULCERS: A COMPARATIVE STUDY BETWEEN POPULATIONS**

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**INTRODUCTION:** Pressure ulcers are a prevalent condition that is often preventable, particularly in high-risk populations such as the elderly and those with impaired functional abilities. The presence of pressure ulcers, however, is a poor prognostic indicator, correlating with higher morbidity and mortality rates. Among the tools used to estimate risks of adverse outcomes, the Multidimensional Prognostic Index (MPI) stands out. The MPI is a prognostic tool based on a comprehensive Multidimensional Assessment (VMD), specifically developed and validated for use in hospitalized elderly patients. This index is calculated using a mathematical algorithm that incorporates eight domains, including basic and instrumental activities of daily living, cognitive function, nutritional status, mobility and pressure ulcer risk, multi-morbidity, polypharmacy, and housing status.

**OBJECTIVES:** To identify and characterize patients at risk for pressure ulcers using objective and reproducible criteria, thereby enabling the implementation of preventive measures and providing appropriate care.

**MATERIALS AND METHODS:** This prospective observational study included 42 hospitalized patients aged 75 and older, admitted to the Internal Medicine Department of Biella from 01/08/2024 to 01/11/2024. The patients were divided into two groups: those with pressure ulcers and those without. Data collected included personal details, patient origin, length of hospitalization, admission diagnosis, presence of pressure ulcers upon admission (including number, location, and stage using standardized methods from the National Pressure Ulcer Advisory Panel, 2009), positioning of anti-decubitus mattresses, blood test results on admission (hemoglobin, hematocrit, glucose, sodium, albumin, CRP), number of medications, 15-day mortality, comorbidities, and MPI scores (including results from various geriatric scales) at both the beginning and end of hospitalization. Statistical analysis included Fisher's exact test for categorical variables, the Shapiro-Wilk test for sample normality, and t-tests for independent samples or non-parametric tests as appropriate, with statistical significance defined as  $p < 0.05$ .

**RESULTS:** The majority of patients in both groups were male,

with a similar mean age and comparable admission diagnoses. The group with pressure ulcers, despite using fewer medications at home, showed a comparable comorbidity index score. Nutritional status and the presence of dysphagia did not differ significantly between the groups. Notable differences were observed based on domicile, with a higher proportion of patients with pressure ulcers coming from residential care facilities. The pressure ulcer group had lower residual daily living abilities and more pronounced cognitive deficits. In the pressure ulcer group, the mean MPI on admission was  $0.8 \pm 0.2$  (indicating high risk) and remained at  $0.8 \pm 0.1$  at discharge (still high risk). In contrast, the group without pressure ulcers had a mean MPI of  $0.6 \pm 0.2$  at admission (medium risk), which decreased to  $0.5 \pm 0.2$  at discharge (medium risk). During hospitalization, no statistically significant changes were observed in the pressure ulcer group, except for the MPI ( $p=0.03501$ ). Statistical tests revealed significant differences in MPI values between the two groups both on admission ( $p=0.001104$ ) and at discharge ( $p=9.607e-07$ ). The control group showed no significant changes in the variables during hospitalization.

**DISCUSSION:** The findings suggest that patients with pressure ulcers, despite having similar comorbidities and nutritional deficits, demonstrated lower functional autonomy and greater cognitive impairments. The higher MPI scores at admission in this group reflect a worse prognosis and greater vulnerability to negative outcomes. The worsening of MPI over time in the pressure ulcer group, as compared to the control group, may indicate longer recovery times and reduced resilience in these patients. Notably, 15 days post-discharge, the mortality rate in the pressure ulcer group was 29%.

**CONCLUSIONS:** The use of a validated tool, such as the MPI, has proven beneficial in adopting a holistic approach to pressure ulcer management. It significantly enhances the understanding of the condition, identifies risk and protective factors, and aids in better identifying patients at high risk. This, in turn, supports the delivery of more appropriate care and preventive strategies. The study has also facilitated the development of a potential care bundle for managing patients with pressure ulcers in our ward.

### **PROGNOSTIC VALUE OF THE CRP-ALBUMIN-LYMPHOCYTE INDEX IN PREDICTING SHORT-TERM MORTALITY IN ACUTELY HOSPITALIZED OLDER ADULTS**

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**INTRODUCTION:** Nutritional status, immune function, and systemic inflammation are critical determinants of clinical outcomes following acute illness, particularly in older adults. Biomarkers reflecting these domains may enhance prognostic assessment in acute care settings. **Aim:** This study introduces and evaluates the CRP-Albumin-Lymphocyte Index (CALLY-index), a composite biomarker derived from serum C-reactive protein (CRP), albumin, and lymphocyte count, as a predictor of overall survival in older patients admitted to an acute geriatric ward.

**MATERIALS AND METHODS:** We retrospectively analyzed clinical and follow-up data from 264 patients admitted to the acute care geriatrics ward of Santa Maria della Misericordia Hospital in Perugia. The CALLY-index was calculated using the formula:  $(\text{Albumin} \times \text{Lymphocytes}) / (\text{CRP} \times 10^4)$ . The optimal prognostic cut-off was identified via receiver operating characteristic (ROC) curve analysis. The impact of the CALLY-index on 3-month survival was evaluated using Kaplan-Meier survival analysis.

**RESULTS:** The cohort included 167 women (63.3%) and 97 men (36.7%), with a mean age of  $88.02 \pm 6.37$  years. At 3-month

follow-up, 80 patients (30.3%) had died. The CALLY-index demonstrated an area under the ROC curve of 0.647 (95% CI: 0.576–0.718;  $p < 0.001$ ), with an optimal cut-off of 0.55 (sensitivity: 68.5%, specificity: 46.3%). Among the deceased, 88.75% had a CALLY-index below 0.55. Kaplan-Meier analysis revealed significantly improved survival in patients with a CALLY-index  $\geq 0.55$  (Log-rank test: 5.45;  $p=0.019$ ).

**CONCLUSIONS:** The CALLY-index is a simple, readily available composite biomarker that may assist in identifying older patients at higher risk of short-term mortality following acute hospitalization. Further prospective studies are warranted to validate its prognostic utility in clinical practice.

### **THE IMPACT OF THE DIAGNOSIS OF MILD BEHAVIORAL IMPAIRMENT IN THE CLINICAL EVOLUTION OF NEUROCOGNITIVE DISORDER**

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**INTRODUCTION:** Neuropsychiatric symptoms (NPS) are common in dementia and its prodromal stages (MCI). Recently, the construct of Mild Behavioral Impairment (MBI) has been formulated, *i.e.* a late-onset neuropsychiatric syndrome, which has been shown to represent an early marker of neurodegenerative diseases. MBI can exist in cognitively intact patients or with a diagnosis of MCI: in both cases there has been a significant increase in the risk of developing a neurodegenerative disease.

**MATERIALS AND METHODS:** The aim of this study is to evaluate the impact of late-onset neuropsychiatric disorders in elderly patients with Mild Cognitive Impairment (framed in the context of Mild Behavioral Impairment) in terms of the risk of developing neurocognitive disorder greater than one year and how their treatment can affect the course of the neurodegenerative process. A prospective single-center cohort observational study was conducted involving patients referred at the geriatric CDCD of the Sant'Orsola Polyclinic. The selected sample includes 117 patients diagnosed with MCI, of whom 72 were diagnosed with MBI and characterized within the syndromic domains outlined in the ISTAART-AA MBI criteria and detected according to the MBI-Check list scale. Neurocognitive functions were assessed by MMSE and MoCA scores at the time of the first visit and at one year.

**RESULTS:** Patients with MCI and those with MCI and MBI did not have significant differences in age, education and cognitive test scores at the first visit. Patients with MCI who had been diagnosed with MBI had a progression rate of neurocognitive disorder of 47.5% at one year compared to 5% in patients without MBI ( $p < 0.001$ ); Higher incidence was found in patients who presented, in order: psychotic symptoms, aggression/agitation and apathy. In addition, patients with MCI and MBI in the affective dysregulation domain (new-onset depressive syndrome) treated with SSRIs had a significantly higher one-year progression rate than patients with MCI and similarly treated long-standing depressive syndrome. Similarly, patients with MCI and MBI in the domain of altered thought and perception content treated with antipsychotics achieved one-year conversion rates of 60%.

**CONCLUSIONS:** The diagnosis of MBI through the MBI – check list would be configured as a useful tool for clinical practice in identifying patients with MCI at high risk of conversion and patients without cognitive impairment but with high risk of dementia deserving of second-level diagnostic investigations. This suggests that new-onset neuropsychiatric disorders, often framed in the context of psychiatric pathology, are actually manifestations of

an underlying neurodegenerative process. Identifying patients with MCI and neuropsychiatric symptoms may allow early identification of neurodegenerative processes and help early undertake strategies potentially capable of slowing cognitive decline.

### USEFULNESS OF SOCIO-ECONOMIC ASSESSMENT IN PREDICTING CLINICAL OUTCOMES IN HOSPITALIZED OLDER ADULTS

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**BACKGROUND:** It is well known that health is also influenced by social determinants, an aspect that becomes even more relevant in the context of the most “frail” population groups such as older people. Indeed, the evaluation of socio-economic and relational aspects should be an essential component of the Comprehensive Geriatric Assessment (CGA) in all healthcare settings, even if it is sometimes neglected.

**AIM OF THE STUDY:** To ascertain the relative role of socio-economic aspects compared to other parameters of the CGA in predicting clinical outcomes in hospitalized older adults.

**METHODS:** Observational study carried out on a sample of geriatric patients consecutively hospitalized for acute diseases or relapse of chronic diseases. Upon admission to the hospital ward, patients underwent CGA which included: Clinical Frailty Scale (CFS, 9 levels: from “very fit” to “terminally ill”), Mini Mental State Examination (MMSE), Geriatric Depression Scale (GDS), UCLA Loneliness Scale, and Gijon’s Social-Familial Evaluation Scale (SFES, which rates five social determinants of health including family situation, economic status, housing, social relationships and support networks; each of these components has five questions weighted on a 1 to 5 scale, for a maximum score of 25, with greater scores indicating higher social risk). Clinical outcomes evaluated were: mortality during hospital stay, mortality during a six-month follow-up period, overall mortality, onset of delirium (diagnosed according to DSM-5 criteria), other hospital complications, need for post-acute nursing home (NH) admission. Main descriptive statistics were reported as absolute and relative (%) frequencies for categorical variables or as means with their standard deviation (SD) or median and interquartile range (IQR), depending on the normality of the distribution. To compare the subjects’ characteristics at baseline, “p” values were calculated by using Student’s t-test or Mann–Whitney U test for independent samples for continuous variables, and chi-square test for categorical ones. The association between each clinical outcome (main dependent variable) and selected covariates was tested by means of a binary logistic regression analysis model. Odds ratios (OR) and 95% confidence intervals (CI) were used to compare the type and degree of association of covariates with the clinical outcomes considered; the predictive ability of the models was then tested by means of a ROC curve.

**RESULTS:** 103 older patients (mean age 84.1±7.19 years; female/male ratio: 1.39) were enrolled in the study after obtaining their specific consent. The mean value of the assessment tools and the respective SD were as follows: CFS=6.1±1.16; MMSE=20.2±6.14; GDS=8.22±3.71; SFES=15.6±5.28; UCLA=6.34±2.41. Six patients (5.8%) died during hospital stay, while another 11 patients (10.7%) died within the 6-month follow-up period. 79 patients (76.7%) presented some medical complication; among them 27 (26.2%) manifested incident delirium. After discharge, 71 patients (68.9%) required temporary admission to a post-acute NH. For each of the clinical outcomes examined, the comparison between the patient groups highlighted statistically significant differences in several CGA parameters and

in age only in the case of in-hospital complications (patients who presented complications were older by approximately 5 years); however, no gender differences were found. In multivariate analysis statistically significant associations emerged only for overall mortality, onset of delirium during hospitalization, need for admission to a NH. In particular, the variables that proved to be independent predictors were: in the case of overall mortality, the SFES scale [OR 0.777 (CI 0.660-0.915), p=0.002] – AUC=0.791; in the case of incident delirium, the SFES scale [OR 0.794 (CI 0.690-0.913), p=0.001] and MMSE [OR 1.120 (CI 1.013-1.239), p=0.027] – AUC=0.858; in the case of need for admission to a post-acute NH, the SFES scale [OR 0.856 (CI 0.740-0.991), p=0.038] – AUC=0.787.

**CONCLUSIONS:** In our study, socioeconomic parameters measured by the SFES scale proved superior to CFS and other CGA scales in predicting relevant clinical outcomes in hospitalized older patients. These data confirm the relevance of social aspects on health and the need to plan their assessment also in acute geriatric wards.

### IMPACT OF COMORBIDITIES AND ANTITHROMBOTIC THERAPY ON IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS POSTOPERATIVE COMPLICATIONS AND VALVE ADJUSTMENTS ON A LONG TERM FOLLOW UP

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**INTRODUCTION:** Ventriculoperitoneal shunting (VPS) is an effective treatment for idiopathic normal pressure hydrocephalus (iNPH), but post-operative complications remain a concern. As iNPH predominantly affects older patients, an even higher pre-, peri- and post-operative management complexity exists due to increased frequency of antiplatelet and anticoagulant assumption, cardiovascular risk factors and overall comorbidities.

**OBJECTIVES:** This study investigates the long-term impact of comorbidities, anticoagulant and antiplatelet therapy on post-operative complications and valve adjustments.

**MATERIALS AND METHODS:** We conducted a prospective observational study on iNPH patients who underwent VPS between 2015 and 2020 as part of the Pro Hydro study. Data were collected through long-term follow-up, which included periodic clinical assessments and brain CT/MR scans. Comorbidities were evaluated using the Charlson Comorbidity Index (CCI). Detailed information on antiplatelet and anticoagulant therapy, including suspension and resumption timing, was recorded. Initial valve settings and subsequent adjustments were documented. Statistical analyses were performed using Fisher’s exact test for categorical variables and the Wilcoxon test to compare quantitative (non-normally distributed) and qualitative variables.

**RESULTS:** A total of 96 patients (mean age 75.9±4.1 years, 57 males) were included. The median CCI was 5, identifying a multimorbidity condition. Among them, 55 (53%) were on antiplatelet or anticoagulant therapy. Patients were followed up until 2024, with a mean post-operative follow-up of 1600 days. Overall post-operative hemorrhagic complications occurred in 21 patients (20%); 20 patients were asymptomatic and were treated conservatively; 1 patient with clinical deterioration required a burr hole evacuation of a chronic subdural hematoma. Postoperative complications showed no statistically significant association with antiplatelet or anticoagulant use (p=0.67). CCI distribution was similar according to the presence or absence of post-operative complications (p=0.71), as well as with the assumption or not of antiplatelet or anticoagulant therapy (p=0.63). Additionally, no

thrombo-embolic complications were recorded for all patients after antiplatelet and anticoagulant suspension. A significant association was found between the use of anticoagulants or antiplatelets and the likelihood of at least one valve setting modification during long-term follow-up ( $p=0.02$ ). No correlation was observed between valve setting modifications and post-operative complications ( $p=0.91$ ).

**CONCLUSIONS:** Our study suggests that the use of ventriculoperitoneal shunting for iNPH in older patients leads to a

manageable rate of post-operative complications, with no significant association between these complications and the use of antiplatelet or anticoagulant therapy. However, the need for valve setting modifications during long-term follow-up was notably higher among patients on anticoagulants or antiplatelets. Future advances should focus on optimizing pre-, peri-, and post-operative management strategies, particularly regarding anticoagulation and antiplatelet therapy, to further reduce the risk of complications and improve patient outcomes.



## POSTERS

### **CHRONIC PAIN AS AN UNDER-RECOGNIZED GERIATRIC SYNDROME IN OLDER ADULTS WITH MAJOR NEUROCOGNITIVE DISORDER: INSIGHTS FROM AN ACUTE GERIATRIC CARE SETTING**

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**OBJECTIVES:** Chronic pain frequently goes unnoticed and inadequately managed in older adults suffering from major neurocognitive disorders, largely due to limitations in communication and cognitive function. This research seeks to define chronic pain as a geriatric syndrome among cognitively impaired elderly patients admitted to hospital care. Specifically, it explores the prevalence of pain, its clinical associations, and its short-term effects on adverse outcomes such as frailty, diminished quality of life, and mortality.

**STUDY DESIGN:** Observational study conducted at a single clinical site. **Setting and Population:** The investigation was carried out in an acute care unit for geriatrics, including 292 participants aged 65 years and older who exhibited cognitive impairments.

**METHODS:** Pain evaluation was performed using the Pain Assessment in Advanced Dementia (PAIN-AD) scale. A comprehensive assessment of clinical variables was conducted, incorporating frailty (measured via the Clinical Frailty Scale, CFS), quality of life (measured using the EQ-5D-3L instrument), comorbid burden (evaluated with the Cumulative Illness Rating Scale – Geriatric version, CIRS-G), and mortality. Statistical analyses encompassed Pearson correlation coefficients, linear and logistic regression modeling, as well as Kaplan-Meier survival analysis. **Findings:** Of the 292 individuals assessed, 62.4% had a PAIN-AD score of 2 or greater, yet only 2.8% were prescribed analgesic treatment. Elevated PAIN-AD scores were significantly correlated with greater frailty (CFS,  $r=0.297$ ,  $p<0.001$ ), poorer quality of life (EQ-5D-3L,  $r=0.318$ ,  $p<0.001$ ), and higher short-term mortality. These associations persisted even after adjusting for potential confounding variables: pain remained a significant predictor of frailty ( $B=0.244$ , 95% CI: 0.060–0.428,  $p=0.010$ ), impaired quality of life ( $B=0.537$ , 95% CI: 0.241–0.833,  $p<0.001$ ), and mortality risk ( $B=0.299$ , 95% CI: 1.134–1.604,  $p=0.001$ ). Kaplan-Meier curves indicated significantly decreased survival in those with elevated PAIN-AD scores.

**CONCLUSIONS AND IMPLICATIONS:** Chronic pain is an often-overlooked condition in cognitively impaired older adults and appears to function as a significant geriatric syndrome. Its presence is linked to adverse outcomes, including frailty, lower

quality of life, and heightened mortality. Despite its prevalence, pain is inadequately treated in this population. Routine application of structured assessment tools like PAIN-AD could enhance pain recognition and management, ultimately improving patient outcomes in geriatric healthcare.

### **SOCIAL FRAILITY AS THE MAIN PREDICTOR OF POST-DISCHARGE EMERGENCY DEPARTMENT VISITS IN OLDER PATIENTS**

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**INTRODUCTION:** Social and clinical frailty impact medium-term outcomes in older patients. After discharge, the risk of emergency department visits and readmissions may increase in the presence of multiple factors, depending on patients' clinical and social characteristics (1).

**STUDY AIM:** This retrospective observational study aims to analyze the predictors of new emergency department visits at 6 and 12 months post-discharge, with a particular focus on social and clinical frailty, in a sample of patients discharged from an acute Geriatrics Unit.

**MATERIALS AND METHODS:** 154 patients (50% female; mean age  $84.51\pm 7.24$  years) discharged from an Acute Geriatrics Unit between January 1, 2022, and December 31, 2024, were analyzed. Patients were followed up to assess the number of emergency department visits and readmissions at 6 and 12 months. All patients underwent a comprehensive geriatric assessment (CGA) during their hospitalization, collecting data on comorbidities (Cumulative Illness Rating Scale), pharmacological history, social care context, pre-admission autonomy (Instrumental and Basic Activities of Daily Living), nutritional status (Mini Nutritional Assessment – Short Form), sarcopenia (SARC-F scale), risk of hypokinetic syndrome and pressure ulcers (Exton-Smith Scale), and delirium (4AT test). These data were used to assess frailty (Clinical Frailty Scale) and prognosis (Multidimensional Prognostic Index). Univariate ANOVA analysis was followed by multivariate analysis (logistic regression, ENTER method). A  $p$ -value  $<0.05$  was considered statistically significant.

**RESULTS:** 34.4% of the sample exhibited social frailty (identified as the need for protected discharge), 53.1% were classified as very frail (CSF  $>7$ ), and 14.3% were institutionalized at discharge. At 6 and 12 months post-discharge, the mean number of emergency department visits was  $0.28\pm 0.63$  and  $0.62\pm 1.08$ , respectively. A correlation was found between social frailty and a higher number of emergency department visits at 6 months ( $0.46\pm 0.87$  vs.  $0.18\pm 0.43$ ;  $p=0.010$ ) and 12 months ( $0.94\pm 1.45$  vs.  $0.47\pm 0.82$ ;

$p=0.043$ ), as well as longer hospital stays ( $13.06\pm 7.47$  vs.  $10.17\pm 6.67$  days;  $p=0.016$ ). Regarding discharge setting, univariate analysis showed that home discharge was significantly associated with increased emergency department visits at 6 months ( $0.40\pm 0.77$  vs.  $0.10\pm 0.31$ ;  $p=0.005$ ), while institutionalization at discharge was significantly associated with a reduction in emergency department visits at 12 months ( $0.80\pm 0.28$  vs.  $0.70\pm 1.13$ ;  $p=0.050$ ). No significant correlations were found between clinical frailty factors (as assessed by CGA) and the number of emergency department visits at 6 and 12 months.

**CONCLUSIONS:** The study results suggest that social frailty, rather than clinical frailty, is the primary determinant of emergency department visits post-discharge. These findings highlight the need to move beyond a purely clinical approach, promoting integrated care models that include timely and continuous social support, particularly for patients discharged home with social vulnerability. Strengthening the hospital-community network could reduce inappropriate use of emergency services and improve health outcomes in the months following discharge in the elderly population.

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### INCIDENCE OF SHORT AND MEDIUM-TERM POSTOPERATIVE MEDICAL COMPLICATIONS IN ELDERLY PATIENTS WITH HIP FRACTURE

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**BACKGROUND AND AIM OF THE STUDY:** Hip fracture in the elderly is frequent and associated with adverse outcomes such as high perioperative complication rates and increased short- and medium-term mortality (1). According to scientific review, complications occur in 20–70% of cases (2), and 1-month mortality reaches 5–15%, significantly higher than in the general age-matched population (3). This study aims to evaluate the incidence of postoperative geriatric complications within 7 and 30 days and the 30-day mortality in patients aged  $\geq 65$  with hip fractures.

**MATERIALS AND METHODS:** A prospective observational study was conducted at the Civil Hospital of Baggiovara (Feb–Dec 2024) including patients  $\geq 65$  years consecutively admitted to the Orthogeriatrics ward for proximal hip fractures. "FIT" patients were discharged home or to intensive rehabilitation centers; "FRAIL" patients were transferred to the in-hospital Orthogeriatric Rehabilitation Unit (ROG), managed by a multidisciplinary team with geriatric leadership. Demographic, clinical, and functional data were collected. All patients underwent comprehensive geriatric assessment and complications monitoring during hospitalization and up to 30 days post-surgery.

**RESULTS:** The study included 382 patients (75.2% female), mean age  $84.7\pm 7.6$  years. At baseline, 55% were independent in Basal Activities of Daily Living (ADLs) and only 26.6% in Instrumental Activities (IADLs); 20% had severe frailty measured by Clinical Frailty Scale (CFS  $>7$ ), 16.6% high comorbidity by means of Cumulative Illness Rating Scale (CIRS-C  $>5$ ), and 30.2% cognitive impairment observed by Short Portable Mental Status Questionnaire (SPMSQ  $>4$  errors). Mean home medications was 6 ( $\pm 3.4$ ). Fracture type distribution: 44% medial, 56% lateral. Overall, 63.5% experienced at least one perioperative complication and 32% had two or more. Short-Term Complications ( $<7$  days). Infections (34.6%) were most frequent: urinary tract infections

(UTIs) in 22% and respiratory infections in 17.9%. Delirium occurred in 31%, classified as preoperative (8%), perioperative (52%), or postoperative (40%). Among these, 65.5% were hyperactive, 23.3% mixed, and 11.2% hypoactive. Other short term medical complications were: heart failure (17.2%), postoperative bowel sub-occlusion (9.3%) and new-onset arrhythmias (5.8%). Less frequent ( $<1\%$ ) complications were intestinal infections, major bleeding (4), pressure ulcers, strokes, acute coronary syndromes, pulmonary embolism (PE), and deep vein thrombosis (DVT). Medium-Term Complications ( $>7$  and  $<30$  days). A subgroup of 108 patients was monitored for 30 days post-surgery. In this subgroup, 74 frailer patients were transferred to the ROG ward around postoperative day 7, where daily monitoring continued. In ROG additional complications were observed: respiratory infections (15.7%), UTIs (25%), delirium (19.7%), and heart failure (12.2%). Mortality 30-day mortality was 3.5%, lower than national averages (PNE data).

**CONCLUSIONS:** This study confirms a high incidence of medical postoperative complications in elderly patients with hip fractures, particularly delirium, infections, and heart failure. Despite frailty and clinical complexity of the population included in the study, mortality remained below benchmarks, likely due to early surgery, mobilization, pressure ulcer prevention, and thromboembolism prophylaxis- key features of the orthogeriatric model. The multidisciplinary, geriatric-led approach enables timely complications management, confirming the effectiveness of the integrated orthogeriatric model in improving outcomes for elderly hip fracture patients.

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### PROBABLE SARCOPENIA AND DEPRESSIVE SYMPTOMS IN COMMUNITY-DWELLING OLDER ADULTS: EXPLORING THE ROLE OF FRAILTY AND COMORBIDITIES

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**INTRODUCTION:** Sarcopenia is a syndrome marked by the progressive loss of skeletal muscle mass and function, often accompanied by decreased physical performance. It has been increasingly recognized as a possible correlate of depression, the most common source of psychological distress in older adults, which negatively affects their quality of life. Aim The objective of this study was to investigate the association between probable sarcopenia and clinically significant depressive symptoms (CSDS) in older adults, and to explore whether frailty and comorbidity modify this relationship.

**MATERIALS AND METHODS:** This cross-sectional study included community-dwelling older adults undergoing their first geriatric assessment. Probable sarcopenia was screened using the SARC-F questionnaire. CSDS were assessed using the 5-item Geriatric Depression Scale (GDS). Frailty status was measured by the CHSA-Clinical Frailty Scale (CFS), and comorbidity burden was quantified using the Cumulative Illness Rating Scale for Geriatrics (CIRS-CI).

**RESULTS:** The study enrolled 238 participants, with a mean age of  $82.4 (\pm 6.9)$  years; 152 (63.6%) were female. Probable sarcopenia was identified in 131 participants (55.0%), while CSDS were present in 186 participants (78.2%). In a fully adjusted logistic regression model, probable sarcopenia was associated with a higher likelihood of CSDS (OR 2.70, 95% CI 1.03–6.12). No significant interaction was observed between probable sarcopenia and either frailty or comorbidity in relation to CSDS.

**CONCLUSIONS:** The high co-occurrence of probable sarcopenia and depressive symptoms among older adults suggests a significant association, which appears to be independent of both frailty and comorbidity burden.

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### **ASSISTIVE TECHNOLOGIES AND PRESCRIPTIVE APPROPRIATENESS: PRELIMINARY FOLLOW-UP DATA ON INTERVENTIONS CARRIED OUT BY GERIATRICIANS AND OCCUPATIONAL THERAPISTS IN NATIONAL HEALTH SERVICE IN MODENA**

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**INTRODUCTION:** WHO has long been vocal about the importance of Assistive Technologies (AT), which it clearly defines as “inalienable human rights” (ONU, 2006; WHO, 2016) and as such must be prescribed appropriately. Underlying this, we find the evaluation process, which must necessarily be based on tools that are appropriate for measuring outcomes. In all regulations concerning the complex world of AT, it is always emphasized that the AT prescription must meet “criteria of appropriateness” (WHO, 2016; WHO, 2023): this concept combines in itself the effectiveness in achieving the goals that have been defined, the usefulness felt by the person who has to use it, and efficiency with respect to the expenditure of both human and economic energy. For all these reasons, it is necessary to measure appropriateness with specific and validated tools, avoiding relying on our subjectivity or purely economic considerations. The literature reports how indispensable it is to base both assistive counseling and device training on the resources, activities, and desires of the person, particularly in old age, and that the professionals performing this service must be competent and specialized (Mortenson, 2007; Hoenig, 2005; Cook, 2002).

**SCOPE:** This study aims to investigate, for the first time in Italy, the level of satisfaction in AT assessment pathway in Azienda USL di Modena, both following the assessment of Occupational Therapists and prescription of Geriatricians (TO-G), and with only the assessment and prescription of the carried out by General Practitioners (GPs).

**MATERIALS AND METHODS:** The study was carried out through telephone interviews with caregivers of users in geriatric age, between January and March 2024, were prescribed one or more assistive devices by their GPs in AUSL Modena; two validated tests in Italian were administered to people who accepted the interview: the QUEST 2.0 (Quebec User Evaluation of Satisfaction with assistive Technology 2.0) and the KWAZO (Kwaliteit van Zorg). The QUEST 2.0 investigates the level of satisfaction the user has/had regarding the assistive technology, while the KWAZO investigates the perceived quality of the AT assessment pathway. Both instruments use a score directly proportional to the level of satisfaction ranging from 1 (not satisfied) to 5 (completely satisfied).

**RESULTS:** From the initial 220 GPs patients found to be eligible, 100 caregivers were interviewed, collecting a total of 253 tests, divided into 153 QUEST 2.0 and 100 KWAZO. Analysis of the overall test averages resulted in a score of 3.99 in QUEST 2.0 and a score of 4.03 in KWAZO. Analyzing the items more specifically showed that item 12 in QUEST 2.0 (relating to the service of checking and controlling the aid over time) scored an overall mean of 1 (not satisfied) and that item 6 in the KWAZO (referring to the professionals’ consideration of the patient’s opinion and wishes regarding AT assessment) achieved an overall mean of 2.09, or “mediocre.” When comparing with previous years’ data on the AT

assessment paths with the Occupational Therapist involved together Geriatricians (TO-G), users express higher satisfaction at QUEST 2.0 (score 4.65 SERVICE TO-G, compared with a score of 3.28 SERVICE GPs), so there is a difference of as much as 1.37 pts, while in the tot. of QUEST 2.0 the difference is 0.65 pts. In favor of the AT assessment pathway with TO-G. Relative to the KWAZO, there is a difference of more than 0.5 pts in favor of the AT assessment paths in which TO and Geriatricians are involved.

**CONCLUSIONS:** It emerges from this project how much the “follow up phase” represents a valuable opportunity for services to collect data on aspects that are important for improving prescriptive appropriateness. In light of the findings, it is considered useful to suggest continuing the follow up of OT-G and GPs prescriptions by expanding the sample to more districts and creating training events dedicated to AT assessment. In addition, as recommended by the WHO in the guidelines related to wheelchair provision (WHO, 2023), it is suggested to act on the organization of professionals in designing multi-level AT assessment services according to the degree of patients complexity and structure pathways that can identify the figure of the Occupational Therapist and/or Physiotherapist as a possible case-manager for complex cases (as indicated by the AT assessment guidelines Regione Emilia Romagna, 2018).

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### **“DANCE IS OVER”: A PROPOSAL TO REDUCE THE RISK OF FALLING IN NURSING HOMES**

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**INTRODUCTION:** Falls represent a serious risk for the elderly, for their autonomy and for their survival. Reducing the risk is not easy, as it requires interventions both on the physical environment and on the individual, including their therapies. In nursing homes, the problem of falls also entails significant ethical and legal responsibility and fall prevention is therefore a crucial concern. Although current literature suggests that the effectiveness of dance in reducing the risk of falling may be limited, we propose incorporating the Otago Exercise Program performed to the rhythm of music. The goal is to increase the enjoyment of the activities and, consequently, improve residents’ adherence to the project of the Nursing Home “La Residenza” in Brescia.

**OBJECTIVE:** To reduce the risk of falls in subjects who are still capable of walking independently and residing in the Nursing Home.

**MATERIALS AND METHODS:** Ten guests of the Nursing Home “La Residenza” in Brescia agreed to participate: nine women and one man, with an average age of 87.0 years  $\pm$ 7). The

youngest participant is 75, and the oldest is 96. All participants are affected by high comorbidity, with a mean CIRS score (Cumulative Illness Rating Scale) of 26.4 ( $\pm 3.53$ ). All ten subjects had a history of previous falls: 5 reported major limb fractures in the previous two years, 3 reported falls over the previous 6 months, one of whom fell 3 times. Program: a physiotherapist and a professional dancer held ten meetings on a weekly basis, lasting one hour each. The activity proposed consisted of a combination of the validated Otago exercise program, with a choreography of preparatory dance movements, accompanied by a heterogeneous playlist progressively increasing heart rate. We collected scores of Mental State Examination (MMSE), Barthel Index, Tinetti Scale and Timed up, and go Test at the beginning of the program and at the end of the ten weeks. We recorded the events of falling in the following six months. We show data as mean  $\pm$  standard deviation. Statistical evaluation was performed using Student's t-test, with p-values  $< 0.05$  considered statistically significant.

**RESULTS:** All ten subjects completed the program, participating assiduously and enthusiastically in the meetings. All the parameters detected improved at the end of the program although only Timed up and go test reached statistical significance. The MMSE score improved in 8 out of ten subjects, while in 2 there was a slight decline. Overall, the mean score improved from 22.1 ( $\pm 5.8$ ) to 23.1 ( $\pm 5.8$ ), indicating that the activity represented not only a motor but also a cognitive stimulus. The mean Barthel Index increased from 68.3 ( $\pm 19.8$ ) to 72.7 ( $\pm 16.3$ ), reflecting an improvement in 7 subjects, a stability in 2, and a slight worsening in 1 subject, approaching statistical significance ( $t$ -test=2.1;  $p=0.06$ ). The Tinetti Scale scores increased from 19.6 ( $\pm 7.44$ ) to 21.6 ( $\pm 3.86$ ), reflecting stability in 5 subjects and improvement in the other 5. None had a worsening. Notably, the most significant finding was the improvement observed in the Timed up and Go test, going from an average of 21.8" ( $\pm 9.39$ ") to 16.19" ( $\pm 6.054$ ") and reaching statistical significance ( $t$ -test=4.69,  $p=0.001$ ) despite the small sample. All ten subjects improved their speed of walking. We recorded five falls in the six months preceding the dance therapy program, none of the ten subjects fell again during the six months.

**CONCLUSIONS:** Despite the limited sample examined, we noticed how proposing a structured physical activity pleasantly integrated with music has positive consequences not only on the living conditions of the guests of a nursing home but can also be considered as a useful strategy to reduce the risk of falls. Given that walking speed is a recognised indicator of frailty, the significant improvement of this parameter indicates a reduction in frailty and a general improvement in overall health. We observed no significant variations in the score of Tinetti Scale, but we believe the small sample has a significant impact on this result. However, the absence of falls during the six-month observation period is a noteworthy outcome. Additionally, the improvements in the scores of cognitive assessments (MMSE) and autonomy (Barthel index), although not statistically significant, suggest a positive trend and may indicate an improvement in the quality of life of the participants in the project. This is a great result that serves as the foundation for expanding our project to include a greater number of residents.

#### **RELATIONSHIP BETWEEN INDWELLING URINARY CATHETER DURATION AND THE INCIDENCE OF URINARY TRACT INFECTION, ACUTE URINARY RETENTION AND DELIRIUM IN ELDERLY PATIENTS WITH HIP FRACTURE**

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**OBJECTIVES OF THE STUDY:** The proper management of urinary catheters (UC) in orthogeriatric patients remains a debated topic in the literature [1]. It is well known that prolonged UC use is associated with an increased incidence of urinary tract infections (UTIs) (up to 80% of cases), with bacteriuria rates increasing by approximately 5% for each day the catheter remains in place [2]. Prolonged catheterization is also associated with a higher incidence of delirium, as well as increased risks of self-removal and urethral injury [3]. On the other hand, premature removal has been linked in some studies to an increased risk of Acute Urinary Retention (AUR), with incidence rates ranging from 20% to 55% [4]. The aim of our study is to evaluate the relationship between the total and post-operative duration of UC placement and the incidence of UTI, AUR, and delirium in elderly patients with hip fractures.

**MATERIALS AND METHODS:** Prospective observational study. All consecutive patients aged  $> 65$  years admitted to the Orthogeriatrics Department of the Baggiovara Civil Hospital for proximal hip fracture between March 1st and December 31st, 2024, were enrolled. We created three study groups using cut-offs at 48 and 96 hours from catheter insertion to removal, with further subdivisions based on catheter duration in the post-operative period (cut-offs at 24 and 48 hours). The post-operative duration of UC placement was randomly assigned. Delirium was assessed using the CAM scale (reference), UTI was diagnosed through a positive urine culture and suggestive clinical presentation, and AUR was defined as a bladder post-void residual  $> 400$  mL on ultrasound and inability to void.

**RESULTS:** The study included 382 patients (75.4% female), mean age  $84.7 \pm 7.8$  years. Functionally, 55.4% were independent in ADLs, 26.6% in IADLs. Moderate to severe frailty (CFS  $> 6$ ) was observed in 46.1%, and 34.8% had severe comorbidity (CIRS-C  $> 5$ ). Cognitive impairment (SPMSQ  $> 5$ ) was present in 23.6%. Only two patients (0.5%) had permanent catheters. UTI rates increased with total UC duration: 9.8% ( $< 48$ h), 19.4% (49–96h), and 35.5% ( $> 97$ h) ( $p=0.00$ ). Delirium rates also rose significantly (25%, 28.3%, 41.3%,  $p=0.04$ ). AUR incidences showed no significant differences ( $p=ns$ ). Regarding post-operative UC duration, UTI rates were 17.0% ( $< 24$ h), 18.6% (25–48h), and 38.9% ( $> 48$ h) ( $p=0.00$ ). Delirium incidence rose from 29.0% to 45.8% in the  $> 48$ h group ( $p=0.01$ ). AUR incidence remained stable (19.1%, 20.6%, 26.8%,  $p=ns$ ). Most frequent UTI pathogens were *E. coli* (45.1%), *P. aeruginosa* (12.7%), *E. faecalis* (12.7%), and *K. pneumoniae* (8.4%). Catheter self-removal occurred in 3.6% of cases, almost always in patients with delirium.

**CONCLUSIONS:** Our data show that UC duration  $> 48$  hours—whether considering the total time from insertion in the Emergency Department or the post-operative maintenance period—is strongly associated with the onset of infections and delirium. Our findings do not confirm an increased incidence of AUR following early catheter removal, as reported in some studies in the literature. These results support the need to keep urinary catheterization as short as possible, with removal preferably on the first post-operative day.

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## IMPLEMENTING COHOUSING FOR PEOPLE WITH DEMENTIA: A PILOT ORGANIZATIONAL MODEL FOR HEALTH AND SOCIAL CARE PROFESSIONALS

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**INTRODUCTION:** The demographic aging and increasing social and health-related frailty among older adults have stimulated the search for innovative housing models. Cohousing is proposed as an alternative to traditional residential care, promoting autonomy, social inclusion, psycho-physical well-being, and maintaining access to socio-health services, potentially even for individuals with dementia.

**AIM:** To describe the experimental “Ca’ Nostra” dementia cohousing model and to present the operational guidelines developed to enhance the replicability and standardization of the intervention in various socio-health contexts.

**MATERIALS AND METHODS:** A narrative review of the international literature (2010–2025) on cohousing and dementia was conducted, selecting systematic reviews, scoping reviews, observational studies, and protocols from major databases and institutional sources. The focus was placed on social determinants, health outcomes, and replicability. In parallel, the “Ca’ Nostra” project launched in 2016 within the provincial socio-health network in Modena was analyzed, and objectives, procedures, and operational tools for healthcare, social care, and third-sector professionals were defined. Results Literature suggests that cohousing may reduce social isolation, improve perceived mental well-being, and foster autonomy, despite methodological weaknesses and a lack of dementia-focused studies. “Ca’ Nostra” demonstrated the feasibility of a public-private integrated model based on shared governance, family-managed operations, periodic geriatric assessments, and continuous staff training. The operational document provides practical guidance on user selection, active caregiver involvement, socio-healthcare integration, and participatory monitoring.

**CONCLUSIONS:** Dementia cohousing represents a promising alternative to early institutionalization, supporting quality of life, economic sustainability, and the activation of local support networks. The “Ca’ Nostra” experience and the operational guidelines offer a concrete foundation for the dissemination and evaluation of replicable models across diverse regional settings.

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## ADAPTED PHYSICAL ACTIVITY FOR INDIVIDUALS WITH MAJOR NEUROCOGNITIVE DISORDERS

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**INTRODUCTION:** The Cognitive Disorders and Dementia Centers (CDCD) participated in a funding call promoted by the Modena Foundation, submitting the project “Prevention and Inclusion: Strategies to Improve the Quality of Life of Older Adults within the Community.” The project aims to foster prevention and social inclusion by promoting access to adapted physical activity for individuals with cognitive impairments. This study focuses on a specific segment of the project, conducted in collaboration with UISP (Italian Association of Sport For All).

**OBJECTIVES:** The primary objective was to evaluate the feasibility of the initiative by involving at least 110 individuals over an 18-month period. Secondary aims included assessing quality of life, mood, cognitive functioning, physical health parameters, and fall risk among individuals with dementia.

**MATERIALS AND METHODS:** Participants were recruited from the CDCD centers of Modena and Castelfranco Emilia. Inclusion criteria were: living at home, being supported by a cooperative caregiver, and having a diagnosis of mild to moderate major neurocognitive disorder (CDR 0.5–2) established by the CDCD between October 2024 and December 2025. Exclusion criteria included severe dementia (CDR 3), relevant psychiatric comorbidities, or uncooperative caregivers. An initial evaluation (T0) was carried out by a kinesiologist with a Master’s Degree in Adapted Physical Activity (AMPA) from the Community Geriatrics Team, using the following tools: Quality of Life in Alzheimer’s Disease scale (QoL-AD); Short Physical Performance Battery (SPPB); Memory Assessment Clinical Questionnaire (MAC-Q); Geriatric Depression Scale (GDS-15); Falls Efficacy Scale – International (FES-I); Number of falls in the past year. Participants could then engage in one of the following modalities: (1) home-based individual activity, (2) small group gym sessions, or (3) outdoor group training. All physical activity sessions were led by UISP kinesiologists and focused on strength training, aerobic conditioning, balance, mobility, and cognitive stimulation. Re-evaluations are scheduled at 3 months (T1) and 12 months (T2) post-enrollment.

**RESULTS:** Data collected within the first six months demonstrated high participation rates. Out of 188 eligible individuals, 113 evaluations were completed; 37 declined participation, and 38 were placed on a waiting list. Of those assessed, 28 later opted out, 7 are pending program initiation, and 78 have begun the physical activity interventions. Among participants, 31 were assigned to home-based activities, 40 to gym-based groups, and 7 to outdoor activities. Follow-up assessments will be conducted after three months to evaluate secondary outcomes.

**CONCLUSIONS:** Preliminary findings suggest that the program is feasible and holds promising benefits for the well-being and social inclusion of individuals with dementia. High levels of engagement and motivation were observed among patients, caregivers, and professionals. Further research will help to clarify the program’s effects on the assessed outcomes.

## IMPACT OF SGLT2-INHIBITORS ON FRAILTY AND MULTIDIMENSIONAL GERIATRIC ASSESSMENT IN HOSPITALIZED ELDERLY PATIENTS FOR HEART FAILURE

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**INTRODUCTION:** Frailty is increasing in prevalence. Because patients with frailty often have a less favorable risk/benefit profile, they may be less likely to receive new pharmacologic treatments. We investigated the impact of SGLT2-inhibitors on frailty status according to the multidimensional geriatric assessment in hospitalized patients for heart failure with or without type 2 diabetes.

**OBJECTIVES:** To evaluate, after one month of follow-up, the impact of SGLT2-inhibitors on cardio-renal function, functional autonomy, cognitive performance, mood, residency/social status, polypharmacy, comorbidity, frailty, and prognosis in patients aged  $\geq 75$  years hospitalized for exacerbation of chronic heart failure, with or without diabetes.

**MATERIALS AND METHODS:** A consecutive series of elderly patients (aged  $\geq 75$  years) with exacerbation of chronic heart failure referred to the Geriatrics Unit of Pescara's hospital were recruited between January and April 2025. The diagnosis of chronic heart failure exacerbation was made according to the international guidelines of the European Society of Cardiology. Patients with severe dementia, terminal oncological diseases, or unable to complete a multidimensional geriatric assessment were excluded. All patients underwent clinical and laboratory parameters, creatinine clearance according to the Cockcroft-Gault formula, assessment of type 2 diabetes, echocardiographic examination, evaluation of social status, home therapy, frailty index according to Fried criteria, functional status through Activity of Daily Living (ADL) e Instrumental Activity of Daily living (IADL), risk of falling, mood through Geriatric Depression Scale 15-items (GDS), nutritional status through Mini-Nutritional Assessment short-form (MNA), comorbidity through the Cumulative Illness Rating Scale-Comorbidities (CIRS-C), cognition through Montreal Cognitive Assessment (MoCA), and prognosis through the Multidimensional Prognostic Index. Patients recruited underwent therapy with gliflozins, respecting the prescribing criteria for this class of drug. After one month, the patients repeated the same evaluation protocol. The statistical analysis was carried out using parametric or non-parametric tests for rating scales and other non-normally distributed variables.

**RESULTS:** During the study period, 39 patients were recruited, with an average age of  $83.61 \pm 7.07$  years; 19 of them were male. Thirteen patients had a diagnosis of exacerbation of heart failure with mid-range ejection fraction, fourteen of heart failure with preserved ejection fraction, and twelve of heart failure with reduced ejection fraction. Twenty patients took dapagliflozin, while nineteen patients received empagliflozin, in addition to ACE-inhibitors or sartans, beta-blockers, and diuretics. The patients presented a median creatinine value of 1.44 mg/dl and a median eGFR of  $36.61 \pm 27.57$  ml/min. The median number of medications was 8 (IQR 4-12); the median number of caregivers was 1 (IQR 1-2); the median value of frailty index was 3 (IQR 2-4), of ADLs were 3 (IQR 2-4), of IADLs were 3 (IQR 1-4), of GDS was 4 (IQR 3-5), of MNA was 20 (IQR 15-25), of CIRS-C was 3 (IQR 2-4), of MoCA score was 25 (IQR 24-26) and of MPI was  $0.53$  (IQR  $0.53 \pm 0.13$ ). Two weeks after discharge, patients underwent clinical and laboratory evaluations (electrolytes and renal function) with optimization of therapy if needed. At one month, the geriatric multidimensional assessment and echocardiographic examination were

repeated. A statistically significant difference was observed at the univariate analysis regarding creatinine values, showing improvement in creatinine clearance, a reduction in the number of drugs (at least one), an improvement in ADLs (with a gain of one functional level), and improvements in MoCA and MPI scores.

**DISCUSSION:** The kidney-protective effects of SGLT2-inhibitors, including the secondary reduction or complete discontinuation of diuretic and/or antihypertensive therapy, was confirmed even in frailty patients. Optimizing therapy through strict follow-up, such as reduction or discontinuation of diuretics or antihypertensive treatments, was crucial. Clinical improvement resulted in better cognitive performance and functional autonomy, partly due to the pleiotropic effects of gliflozins. The final net benefit was an improvement in the multiprognostic index.

**CONCLUSIONS:** The elderly population is a heterogeneous group, and an individualized approach beyond age is essential to guide cardiovascular prevention goals and strategies. The inclusion of frail older adults in randomized controlled trials and clinical studies representative of real-world settings is needed. Age alone should not dictate clinical decisions. The multidimensional assessment strategy allows cardiovascular prevention strategies to be optimized and individualized, promoting a realistic adaptation of objectives without falling into either therapeutic obstinacy or nihilism.

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## STAUFFER'S SYNDROME PRESENTING AS POLYMYALGIA RHEUMATICA

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Polymyalgia rheumatica (PMR) is one of the most common inflammatory rheumatic disease affecting the elderly. Typically, acute phase reactants [APR] (specifically, ESR, CRP and interleukin (IL)-6) are high at the time of diagnosis, and their values are fastly and significantly reduced when 15-20 mg/day prednisone is used. Abnormal liver function tests are not uncommonly seen among patients with PMR and usually normalize after prednisone treatment. Stauffer's syndrome is an uncommon paraneoplastic syndrome characterized by abnormal liver function, especially with elevation of alkaline phosphatase (ALP) and gamma-glutamyl transferase (gGT) [usually without jaundice], associated with marked elevation of APR and systemic manifestations such as fever, general malaise, loss of weight. By definition, there is no liver metastasis, and no intrahepatic or extrahepatic ductal dilatation should be found when abdominal US, MRI or endoscopic retrograde cholangiopancreatography are performed. Stauffer's syndrome was reported for the first time in a patient with early-stage renal cell carcinoma, and can be occasionally associated with other malignancies. A 66-year-old woman was initially diagnosed as PMR. She started with prednisone 12.5 mg/day. After a week, since there was no improvement, prednisone was increased to 25 mg/day. However, loss of appetite, general malaise and abdominal pain were

present, and no significant improvement of scapular and pelvic girdles aching was reported. A new laboratory work-up carried out in the 3th week revealed marked increase both of acute phase reactants and cholestasis indices. At this point, an abdominal US was performed, revealing a mass in the left kidney. The patient was admitted at a local clinic where a total body CT showed hepatomegaly without focal lesions, presence of numerous gallstones in the gallbladder, suspected neoplasia in the left kidney, and absence of metastasis. The left kidney and gallbladder were removed. Kidney had a characteristic sulphur yellow colour, and - after histological examination - a clear cell renal carcinoma was diagnosed. After one month, all laboratory data normalized. The main laboratory data are listed in Table 1. In about 10 years, there was no recurrence of either cancer or PMR, and the patient is currently in good health. Some investigators have hypothesized that IL-6 plays a central role in Stauffer's syndrome, since its levels are significantly high in both serum and in neoplastic tissue. A poor or no response to glucocorticoids is the rule, while the surgical removal of the cancer normalizes both liver function and IL-6 serum levels. This happened in our patient. To the best of my knowledge, this is the first case of Stauffer's syndrome presenting as PMR. IL-6 could provide a plausible pathophysiological link between these two conditions. To date, no other cases of Stauffer's syndrome presenting as PMR have been reported in published literature.

Table 1. Main laboratory parameters for our patient.

Laboratory parameters	At onset	After 3 weeks	After surgery
ESR, mm/h	70	120	30
CRP, mg/dL	30	90	6
ALP, U/L	320	960	100
gGT, U/L	80	160	50
ALT, UI/L	25	40	40
AST, UI/L	80	80	60
IL-6, pg/mL (normal values <50 pg/mL)	150	-	20

### COGNITIVE STIMULATION THERAPY IN OLDER ADULTS WITH MILD COGNITIVE IMPAIRMENT: FINDINGS FROM AN ONGOING GROUP-BASED INTERVENTION STUDY

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**INTRODUCTION:** Mild Cognitive Impairment (MCI) represents a transitional stage between normal aging and dementia. Cognitive Stimulation Therapy (CST) has emerged as a non-pharmacological intervention designed to enhance cognitive functioning and delay cognitive decline. CST typically involves structured cognitive activities delivered in a group or individual format, promoting engagement across multiple cognitive domains. Evidence supports its effectiveness in improving general cognition, quality of life, and social functioning among older adults diagnosed with MCI or early-stage dementia. However, further data are needed to validate its implementation in community-based settings and to refine delivery protocols for individuals with MCI.

**OBJECTIVE:** This ongoing study aims to evaluate the short-term cognitive outcomes of a group-based CST program in older adults diagnosed with MCI. Preliminary data were previously presented, and further data collection and analysis are currently underway.

**MATERIALS AND METHODS:** This single-arm, pre-post interventional study involved 42 older adults (mean age: 78.02±5.19 years) diagnosed with MCI, recruited from our Memory

Clinic. Exclusion criteria included a diagnosis of dementia and the presence of major psychiatric disorders. Participants took part in 10 weekly group sessions of CST, each lasting 60 minutes and composed of 6 participants. The intervention was structured around a protocol combining cognitive engagement techniques with Reality Orientation Therapy (ROT), which supports orientation by consistently reinforcing references to time, place, and identity. Sessions focused on stimulating memory, attention, executive functions, and language, and included reminiscence-based activities using personal photographs, aimed at enhancing autobiographical memory and emotional connection. Homework was assigned weekly to support cognitive continuity between sessions. Cognitive functioning was assessed using the Mini Mental State Examination (MMSE) at baseline (T0) and post-intervention (T1). To minimize potential test-retest bias, a modified MMSE version with alternative recall words was used at T1. Pre-post comparisons were analyzed using paired-sample t-tests (significance set at  $p < 0.05$ ). Results All 42 participants completed both MMSE assessments. The average MMSE score increased from 25.34±2.01 at T0 to 26.29±2.40 at T1, with a mean improvement of +0.95 points. This change was statistically significant ( $t(41) = 3.19$ ,  $p = 0.0028$ ), indicating a modest but meaningful improvement in cognitive performance.

**CONCLUSIONS:** Group-based CST appears effective and feasible for supporting cognitive functioning in older adults with MCI. Despite the absence of a control group and the modest sample size, this study offers valuable real-world evidence. Additional limitations include the short follow-up period, the brief duration of the intervention itself, and the possible influence of test-retest effects despite MMSE modification. Further evidence from future studies is needed to support and strengthen these findings.

### PHYSICAL ACTIVITY AND AMINO ACIDS IN MCI: THEIR ROLE IN PROGRESSION TOWARDS DEMENTIA

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**INTRODUCTION:** Mild Cognitive Impairment (MCI) is characterized by noticeable cognitive decline with minimal or no impact on instrumental activities of daily living (IADLs). Individuals with MCI have a tenfold increased risk of developing dementia compared to cognitively normal individuals. While MCI may represent an early stage of Alzheimer's Disease (AD), it may also result from other pathological processes. Several factors influence the progression from MCI to dementia, including cardiovascular and metabolic diseases (e.g., diabetes, metabolic syndrome, obesity), dietary factors (e.g., vitamin E supplementation), sleep apnea, psychiatric conditions, physical inactivity, and sarcopenia. Physical exercise and essential amino acid (EAA) supplementation are feasible interventions that can synergistically preserve muscle mass and metabolic balance, and are crucial in preventing sarcopenia and frailty—two major geriatric syndromes identified as risk factors for both MCI and dementia. Physical activity is already considered an evidence-based intervention for individuals with MCI and should be included in standard-of-care recommendations.

**OBJECTIVES:** This study aimed to evaluate the impact of physical training alone *versus* combined physical training and dietary intervention on the progression of MCI to AD. Primary outcomes were based on incidence rate differences between groups.

**MATERIALS AND METHODS:** The PHACADE trial (Physical Activity and Aminoacids in Cognitive Decline Evaluation) is an open-label, single-center study funded by the AIRALZH Association (Giovani Bando 2021). It compares two cohorts of MCI patients over a 2-year follow-up period. Participants were recruited from seven Memory Clinics in Modena province (Modena, Mirandola, Carpi, Sassuolo, Castelfranco Emilia, Vignola, Pavullo nel Frignano). Enrollment began in April

2023 and concluded in June 2024; the protocol commenced in May 2023. Inclusion criteria: Age  $\geq 65$  years; Diagnosis of Mild Cognitive Impairment (DSM-5), made within 6 months of enrollment; No impairment in Katz ADLs; Lawton-Brody IADLs score of  $\geq 5/8$  in males,  $8/8$  in females; Neuropsychiatric Inventory (NPI) global score  $< 24/144$ , with zero scores in delusions, hallucinations, disinhibition, and aberrant motor behavior subscales; Short Physical Performance Battery (SPPB) score  $\geq 9$  and Clinical Frailty Scale (CFS)  $\leq 5$ . Exclusion criteria: Acute or decompensated medical conditions potentially contributing to cognitive decline or BPSD; Type 1 diabetes; Institutionalization; Comorbid psychiatric disorders or chronic alcoholism; Life expectancy  $< 24$  months. The control group received a bi-weekly adapted physical activity (APA) program led by a kinesiologist (Master's in Adapted Physical Activity), with sessions lasting 60 minutes for two months. This cycle was repeated every six months (2 months supervised+4 months individual). The intervention group received the same APA program, plus essential amino acid supplementation based on WHO guidelines. Allocation to the intervention group required a baseline SPPB score between 9 and 10. Outcome measures included physical performance tests administered at baseline and at the end of each APA cycle, and again after 24 months.

**RESULTS:** Preliminary analysis included 20 participants (11 in the intervention group, 9 in the control group). Initial findings were promising, showing improvements in physical performance: SPPB increased from 10.15 to 11.60; 6-Minute Walk Test improved from 376 to 428 meters; Handgrip Strength rose from 34.7 kg to 36.4 kg. Memory performance, assessed with FCSRT subtests, remained more stable in the intervention group (decline of -2.1%) compared to the control group (-2.8%,  $p=0.04$ ). Progression to dementia occurred in 8% of the intervention group and 13% of the control group ( $p=0.01$ ). The program showed high feasibility, with an adherence rate of 66%.

**CONCLUSIONS:** Preliminary data suggest that both APA alone and APA combined with dietary intervention may positively affect physical function and potentially slow cognitive decline in individuals with MCI. Full 24-month data will clarify the long-term efficacy of the interventions and the differences between groups.

### **DISENTANGLING COMPLEXITY: A RARE CASE OF VALACYCLOVIR-INDUCED ANGIOEDEMA IN AN ELDERLY PATIENT WITH HERPES ZOSTER INFECTION AND SEVERE HYPONATREMIA**

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**INTRODUCTION:** Along with the aging process, the senescence of the immune system lead to a higher susceptibility towards infections. Herpes viruses are able to establish lifelong latent infections with several complications and impact on quality of life. Treatment is most effective within the first hours of symptom onset. Three oral drugs are available: acyclovir, valacyclovir, and famciclovir. Valacyclovir may be more advantageous due to better bioavailability and better compliance. However, its use can lead to hypersensitivity reactions in rare cases, resulting in treatment discontinuation.

**AIM:** We report the case of a woman who developed rare and life threatening complications after *Herpes Zoster* infection.

**CASE REPORT:** An 82-year-old woman was admitted to our geriatric ward with severe asthenia. Her history included hypertension, obesity, anxious-depressive disorder, mastocytosis, osteoporosis, GI bleeding, and hymenoptera allergy. Home medications

included duloxetine, nebivolol, amiloride/hydrochlorothiazide, calcium/vitamin D, zolpidem, and omeprazole. On admission, severe hyponatremia (111 mmol/L) was detected. Physical exam revealed an unilateral vesicular rash on the neck and cheek, suggestive of *Herpes Zoster*. Valacyclovir (1 g twice daily) was initiated, and diuretics and duloxetine were suspended. After one week, the patient developed severe angioedema involving cheeks, neck, and lips, requiring high-dose intravenous corticosteroids and antihistamines. Valacyclovir was discontinued. Imaging and labs were unremarkable. Cutaneous swab was positive for *Varicella Zoster* DNA and negative for *Herpes Simplex* viruses 1/2. Following ten days of corticosteroids, both angioedema and rash resolved. However, the patient developed persistent hypokalemia, hypocalcemia (with tetany), and hypomagnesemia, requiring intravenous correction and central line access. Fever (38°C) prompted blood cultures, which were positive for MRSA (methicillin-resistant *Staphylococcus aureus*). Empiric antibiotics were started, and echocardiography revealed a probable vegetation on the aortic valve. Transesophageal echocardiography confirmed infective endocarditis. Based on infectious disease consultation, vancomycin and gentamicin were administered. After two months of hospitalization and subsequent rehabilitation, the patient was discharged home in good health.

**DISCUSSION:** Angioedema is a rare adverse reaction related to antiviral therapy. To our knowledge, only few cases of acyclovir induced angioedema has been reported and one case of serious valacyclovir related side effect. To our knowledge, there are no similar cases reported in elderly patients. In our case, the Naranjo adverse drug reaction probability scale yielded a score of 4 suggestive of a probable adverse reaction. Although hypersensitivity reactions to valacyclovir are uncommon, this case suggests the possibility of an IgE-mediated mechanism, potentially linked to prior undocumented exposure to antiviral agents. Other potential causes of angioedema were ruled out. Concerning the severe hyponatremia, based on laboratory findings, the patient could be diagnosed with SIADH (Syndrome of inappropriate antidiuretic hormone secretion) which was similarly presented as an outset of *Herpes Zoster* infection by other previous cases. It was suggested that *Herpes Zoster* virus could reach the dermatome through infected neurons spreading to the spinal cord to the hypothalamus stimulating the release of ADH. Regarding our patient, a probable involvement of hydrochlorothiazide and duloxetine therapy could also be hypothesized. Our patient had a positive outcome with remission of angioedema after introduction of methylprednisolone, nevertheless other complications were observed. With regards to the severe hypokalemia, the direct mineralocorticoid effect and subsequent loss of potassium could be hypothesized. Concurrently, immunosuppressive effects of methylprednisolone may have contributed to the development of infective endocarditis.

**CONCLUSIONS:** The onset of valacyclovir-induced angioedema, SIADH-associated hyponatremia, severe electrolyte imbalances, and subsequent MRSA endocarditis, reflects the complexity of *Herpes Zoster* infections management. A multidisciplinary approach, early recognition of atypical drug reactions, and preventive strategies such as vaccination remain essential in the care of geriatric patients with *Herpes Zoster* infection.

### **CLINICAL IMPORTANCE OF COMPREHENSIVE GERIATRIC ASSESSMENT IN PATIENTS WITH NORMAL PRESSURE HYDROCEPHALUS**

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**INTRODUCTION:** Normal pressure hydrocephalus (NPH) is a potentially reversible syndrome characterized clinically by enlarged cerebral ventricles (ventriculomegaly), cognitive impair-

ment, gait apraxia and urinary incontinence. Idiopathic NPH is symptomatic hydrocephalus in adults without increased intracranial pressure occurring in the absence of other obvious causes, and accounts for about 50% of the cases. Some studies investigated the effects of comorbidities and frailty on the prognosis of iNPH patients, especially when they are surgically treated. However, it is not clear if a comprehensive geriatric assessment in the context of the diagnostic process (in particular, tap test) could help identifying the suitable patients for shunt therapy.

**PURPOSE OF THE STUDY:** Our study, even if descriptive, wants to shed a light over the questioned usefulness of a geriatric assessment protocol before and after tap test.

**MATERIALS AND METHODS:** From June 1st 2023 to September 30th 2023, 11 patients (3 males, 8 females) who had been diagnosed as having probable NPH were enrolled in our study. The suspect of NPH was based on clinical manifestations and radiological evidences (CT or MRI). These patients were evaluated by the Neurology outpatients department of the Nuovo Ospedale Civile Sant'Agostino Estense, based in Modena, Italy. Tap test was performed by removing 40-50 mL of CSF. These patients were referred to our Cardiogeriatrics Centre, in the same hospital, where they were evaluated by geriatricians. The geriatric evaluation included: 1) an accurate medical history, not only about the comorbidities of the patients but even comprehensive of a detailed drug history (including dosages and number of daily administrations). It was collected information about the level of autonomy of the patients (ADL and IADL scales). Furthermore, NPH-related signs and symptoms were investigated, as well as the number of falls and syncopes reported during the last years. 2) General physical examination. 3) Physical performance tests (Physical Performance Battery), Handgrip test and Tinetti scale. This geriatric evaluation was performed shortly before the tap test and then 72 hours after the procedure. During the second evaluation, after the tap test, the patients were asked about the subjective perception of their symptoms after the procedure (improvement, worsening or no variation). Among the 11 patients enrolled in our study, 1 (female) was excluded from further data analysis because she did not show up to the post-test geriatric evaluation, with a consequent and crucial lack of data.

**RESULTS:** The population of our study was made up of 11 patients (3 males, 8 females) with a mean age of  $73.7 \pm 5.18$  years ( $75.3 \pm 5.86$  for males,  $73.1 \pm 5.19$  for females). The most prevalent comorbidities were hypertension, dyslipidemia, pre-existing dementia and depressive disorder. According to the response given by the patients about the subjective perception of their symptoms after the procedure, the patients were divided into 2 groups: Improved (I) and Not Improved (NI). NI patients had significantly worse pre-test results in terms of IADL, Chair Standing test (both ordinal and continuous data), Timed Up and Go test (only continuous data) and nondominant hand Handgrip Test. Almost all patients improved their performances after tap test. Only one patient had a worse performance in Standing Balance after tap test and 4 patients had worse performances in Timed Up and Go test; all the other patients improved or remained unchanged in all the other tests.

**CONCLUSIONS:** The present study suggests the usefulness of a routine comprehensive geriatric assessment (CGA) when evaluating a patient with NPH. Scientific literature already demonstrated the usefulness of some tests and scales even in the context of diagnosis and follow-up after surgery. We are convinced that comprehensive geriatric assessment provides important prognostic information even in such a selected population as that of patients with NPH. Our study presents some limitations, due to its narrow population and some missing data, especially when it comes to physical performance tests, since some of our patients had severe motor disturbances and were not able to undergo a complete evaluation. Geriatricians could have an important role, because CGA could guide decision-making more

objectively and efficiently. In addition, individuating frailty could lead to correction of some of its causes with a potential beneficial effect on the prognosis of the patient and better outcomes of shunt surgery. Further evidences are required, but CGA could be successfully introduced in the protocol of care of patients with NPH by virtue of the mentioned advantages it could give to the patients and health professionals.

### **CORRELATION BETWEEN MULTIDIMENSIONAL ASSESSMENT, PROGNOSTIC INDICES, AND SURVIVAL IN PATIENTS ADMITTED TO ACUTE GERIATRICS UNITS**

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**INTRODUCTION:** Early assessment of frailty and comorbidities is essential in the management of hospitalized older patients (1). Over the years, numerous tools have been validated to assess the complexity of geriatric patients' needs and to provide a prognostic evaluation that accounts for frailty and comorbidity (2,3). However, there is still debate regarding the most appropriate prognostic tool for geriatric patients in different care settings, and therapeutic decisions are often based solely on chronological age (4). Study aim. This retrospective observational study aims to evaluate the correlation between measures obtained from the Comprehensive Geriatric Assessment (CGA) and medium-term survival in a population of patients aged over 65 years admitted to an acute geriatrics unit.

**MATERIALS AND METHODS:** We analyzed 154 patients (50% female; mean age  $84.51 \pm 7.24$  years) admitted to an acute geriatric ward between January 1, 2022 and December 31, 2024. Patients were followed up at 6, 12, and 24 months (mean follow-up: 22 months) to assess post-discharge survival. All patients underwent comprehensive geriatric assessment (CGA), collecting data on comorbidity (Cumulative Illness Rating Scale), medications, social care needs, pre-admission functional status (ADL and IADL), nutritional status (Mini Nutritional Assessment – Short Form), sarcopenia (SARC-F), risk of immobility syndrome and pressure ulcers (Exton-Smith Scale), and in-hospital delirium (4AT test). Frailty was assessed via the Clinical Frailty Scale (CFS), and prognosis via the Multidimensional Prognostic Index (MPI). Univariate ANOVA was conducted to compare survival time across CGA variable groups, followed by multivariate linear regression to identify independent predictors of survival. A p-value  $< 0.05$  was considered statistically significant.

**RESULTS:** The average CIRS comorbidity index was ( $4.77 \pm 1.82$ ), MNA-SF ( $8.27 \pm 3.18$ ), SARC-F ( $7.58 \pm 1.88$ ), ADL ( $2.87 \pm 2.22$ ), IADL ( $2.03 \pm 2.72$ ), and ESS ( $12.73 \pm 3.97$ ). Univariate analysis revealed a significant association between post-discharge survival and high frailty (CFS  $> 7$ : 8.81 months vs. CFS  $< 7$ : 17.92 months;  $p < 0.001$ ), highlighting a marked decline in survival among frail patients. Comorbidity was also significantly correlated with survival (CIRS  $\geq 3$ : 11.58 months vs.  $< 3$ : 18.31 months;  $p < 0.001$ ). Increasing MPI scores were associated with lower survival (MPI 1: 18.81 months vs. MPI 2: 15.69 months vs. MPI 3: 9.14 months;  $p < 0.001$ ). Multivariate analysis identified only CFS ( $B = -2.018$ ;  $p = 0.002$ ; 95% CI: -3.288 to -0.747) and CIRS ( $B = -1.546$ ;  $p < 0.001$ ; 95% CI: -2.358 to -0.733) as independent predictors of survival. Notably, for the same level of comorbidity, each additional point in CFS corresponded to an approximately 2-month reduction in survival.

**CONCLUSIONS:** Post-discharge survival of patients admitted to acute geriatrics units is strongly influenced by both clinical frailty and comorbidity. Frailty assessed by the CFS has an inde-

pendent and quantitatively greater impact on survival compared to comorbidity alone, suggesting it is a more comprehensive measure, capturing both clinical and biopsychosocial aspects. These findings reinforce the importance of routinely integrating CGA into clinical care pathways to identify patients at higher risk of adverse events post-discharge, and to establish individualized care plans and appropriate care goals early during hospitalization.

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### HIP FRACTURE AS A CLINICAL COMPLICATION OF LISTERIA RHOMBOENCEFALITIS: A CASE REPORT OF ORTHOGERIATRICS WARD OF MAGGIORE HOSPITAL OF BOLOGNA

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Fragility fractures represent a common consequence of falls in older people. Gait and balance disorders are frequently associated with falls. In older adults, gait is often characterized by increased rigidity, less coordination and diminished postural control. Furthermore, age-related declines in motor adaptability may impair the ability to perform rapid compensatory movements, such as effective weight shifting or protective stepping responses, in reaction to balance disturbances. (1) Infections of the central nervous system (CNS) may be a cause of gait imbalance. *Listeria monocytogenes* is a Gram-positive facultative intracellular bacterium capable of causing severe invasive disease following the ingestion of contaminated food products. (2) This infection predominantly affects older adults, pregnant women, neonates, immunocompromised individuals, and, in some cases, even immunocompetent hosts. Clinical manifestations range from mild self-limiting gastroenteritis to bacteremia and, in severe cases, involve malignant CNS complications. (3) This case report describes an old woman with hip fracture secondary to *Listeria rhombencephalitis*, underscoring the potential for atypical neurological presentations to precipitate severe orthopedic complications in frail individuals. In this case report, the older woman's underlying frailty was masked by the sudden onset of gait and balance disturbances, which were ultimately attributed to a *Listeria monocytogenes* bacteremia. An 80-year-old woman was admitted to the Orthogeriatrics ward of Maggiore Hospital of Bologna after sustaining an accidental fall resulting in a displaced left femoral neck fracture during her stay in the Emergency Department (ED) of a spoke hospital, where she presented with dizziness and a lateropulsion towards the left. In the ED no further focal neurological deficits were objectified, and ischaemic and haemorrhagic stroke were ruled out by a cerebral CT scan. Her medical history included hypertension, hypercholesterolemia, osteopenia, anxiety-depressive syndrome, and recent psychological stress following family bereavements. A Comprehensive Geriatric Assessment (CGA) revealed the patient had a good functional status for both Basal Activities of Daily Living (BADL) and Instrumental Activities of Daily Living (IADL) and no significant cognitive impairment were noted thanks to the Short Portable Mental Status Questionnaire (SPMSQ). She underwent successful arthroplasty, followed by early mobilization, but developed a fever on the first postoperative day. Blood cultures

identified *Listeria monocytogenes*, leading to the initiation of therapy with ampicilline and levofloxacin. Despite negative lumbar puncture results, brain MRI suggested infectious rhombencephalitis with microabscesses. Further investigations showed no bacterial or viral pathogens in cerebrospinal fluid, and blood cultures were negative on follow-up. Her condition improved clinically and radiologically, with follow-up MRI on day 38 showing partial resolution of brainstem and cerebellar changes. Antibiotic therapy was ultimately discontinued on day 44 without any neurological sequelae. The patient was managed by a multidisciplinary team (Geriatrician, Orthopedic surgeon, Infectious disease specialist and Neuroradiologist), which enabled the patient, despite the neurological clinical presentation and the need to continue intravenous antibiotic therapy in the Infectious Diseases unit, to undergo rehabilitation with a good recovery of ambulation and a gradual recovery of autonomies.

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### COMBINED MEDICAL TREATMENT AND OCCUPATIONAL THERAPY EFFECTIVENESS IN PREVENTION OF FRACTURES IN ELDERLY WOMEN AFFECTED BY BREAST CANCER

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**OBJECTIVES:** Prevention of osteoporosis is a major objective in the management of patients treated for breast cancer with aromatase inhibitors. Denosumab proved effective in prevention of fractures in subjects whose breast cancer was treated with aromatase inhibitors. We evaluated the effectiveness of combined medical treatment with a self-sufficient occupational therapy project to be carried out at home.

**METHODS:** 12 elderly patients affected by breast cancer were followed for 12 months. A post-surgery preventative treatment with aromatase inhibitors combined with Denosumab was prescribed in order to prevent fractures. From T0 to T24 the design of the study included: 1) blood tests; 2) spine and femur bone density scan DEXA; 3) lumbar dorsal spine morphometry; 4) short physical performance battery (SPPB). SPPB evaluates physical performance whose level scores between 0 and 12. In 6 patients (Group A) we evaluated the effectiveness of Denosumab treatment on osteoporosis prevention, while in group B 6 patients were treated with a combination of Denosumab and occupational therapy for effectiveness. Subjects were instructed on how to perform specific exercises at home.

**RESULTS:** Group A patients (mean age 72±3 years) had an average SPPB score 7 (p 0.05) at T0. Group B patients (mean age 71±4 years) had an average SPPB score 7 (p 0.05). At T24 group A patients average SPPB score was 9 (p 0.05) showing an improvement in gait rate. At T24 group B patients had an average SPPB score 10 (p 0.05) showing improvement in balance & gait rates.

**CONCLUSIONS:** This study proved the effectiveness of combined treatment with Denosumab and occupational therapy in elderly patients affected by breast cancer in post-surgery treatment with aromatase inhibitors. The focus was on keeping in check severity markers, preventing fracture risk and improving physical performance.

## ILLNESS AWARENESS IN PATIENTS WITH MILD TO MODERATE MAJOR NEUROCOGNITIVE DISORDER AND THEIR CAREGIVERS

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**INTRODUCTION:** Illness awareness in patients with neurocognitive disorders, defined as the ability to recognize cognitive and functional deficits, is a crucial aspect in patient management. Insight impairment is frequently observed from the early stages of the disease and can negatively affect treatment adherence, mood, and quality of life for both patients and caregivers. A systematic evaluation of illness awareness allows for a better understanding of the clinical profile and more appropriate intervention planning.

**AIM:** The aim of this study was to enhance illness awareness in patients with neurocognitive disorders and their caregivers through targeted cognitive, psychological, and psychoeducational interventions.

**MATERIALS AND METHODS:** A total of 150 patients with mild to moderate major cognitive disorder (Mini-Mental State Examination [MMSE] raw score  $\geq 15$ ) were enrolled. Participants underwent a 12-month integrated intervention including cognitive training, psychological support, and psychoeducational sessions. Outcome measures included the Anosognosia Questionnaire-Dementia, MMSE, Caregiver Burden Inventory, and other validated assessment tools. The significance of the interventions was evaluated by comparing questionnaire scores before and after the intervention.

**RESULTS:** Preliminary results showed an improvement in patients' illness awareness and a reduction in perceived caregiver burden, suggesting a positive impact of the intervention on the caregiving environment.

**CONCLUSIONS:** These findings support the value of a multidimensional intervention approach, which, despite showing preliminary effects on insight, can lead to meaningful emotional and relational benefits for both patients and caregivers.

## ANALYSIS OF PSYCHIATRIC DRUG USE AND CARE PRACTICES IN NURSING HOMES: A COMPARISON BETWEEN TWO KOS GROUP FACILITIES

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**INTRODUCTION:** Managing elderly individuals with dementia and psychiatric disorders is a major challenge for Nursing Homes (RSA). A multidimensional care approach and the use of non-pharmacological interventions are recommended to reduce reliance on psychotropic medications and restraints.

**OBJECTIVES:** To evaluate the association between multidisciplinary care activities and the use of psychiatric medications in two nursing homes, analyzing the differences between the two facilities. Data from 2024 were analyzed from two KOS Group nursing homes: one in Rome (118 beds, 157 patients during the year) and one in Cermenate (100 beds, 166 patients). The following indicators were extracted monthly: use of psychiatric medications, restraints (with and without bed rails), participation in physiotherapy, general educational activities, and specialized educational activities. The data, collected monthly in 2024, were analyzed using R (Version 4.5.0). After assessing normality (Shapiro-Wilk test) and homoscedasticity (Levene's test), comparisons between facilities were performed using t-tests (where applicable) and Mann-Whitney tests. Correlations (Pearson) between activities and the use of psychiatric drugs were estimated. Simple and multivariate linear regression was applied to assess the effect of activities, including interaction analyses between activities and facility.

**RESULTS:** In the Rome facility, 122 patients (73.1%) received psychiatric medications. Restraints (excluding bed rails) were applied to 33.5% of residents. Rehabilitation, general educational, and specialized educational activities involved 81.03%, 71.5%, and 8.79% of users, respectively. In Cermenate, 51.8% of patients received psychiatric medications. Restraints (excluding bed rails) were applied to 40.3% of residents. Physiotherapy, educational, and specialized educational activities involved 96.5%, 97.8%, and 91.16% of users, respectively. In univariate analysis, all activities showed a significant inverse association with psychiatric drug use. In multivariate analysis, general educational and specialized educational activities maintained significance, while the effect of physiotherapy activities was attenuated.

**CONCLUSIONS:** The adoption of educational practices, particularly when structured and specialized, is associated with a reduction in psychiatric medication use, especially in settings where such activities are more systematically implemented. The effectiveness of non-pharmacological interventions is influenced by the organizational context and the care culture of the facility. Promoting an integrated and context-adapted approach can improve residents' quality of life and reduce the use of pharmacological treatments and restrictive measures.

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## THE ROLE OF MULTIDIMENSIONAL PROGNOSTIC INDEX (MPI) IN THE ASSESSMENT OF ELDERLY PATIENTS UNDERGOING CARDIAC REHABILITATION – “AGING-REHAB”

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**INTRODUCTION:** Cardiac rehabilitation is a multidisciplinary intervention aimed at clinical stabilization, secondary prevention, disability reduction, and quality-of-life improvement. Progressive population aging leads to an increasing average age for patients involved in cardiological rehabilitation programmes. In these patients an early, personalized rehabilitation improves functional status compared to usual care. The Comprehensive Geriatric Assessment (CGA) supports diagnosis and treatment planning; in particular, the Multidimensional Prognostic Index (MPI), a scoring system derived from CGA, stratifies frailty and one year risk of death, rehospitalization and institutionalization. Frailty, defined as increased vulnerability due to reduced physiological reserves, is an independent predictor of adverse outcomes. Accurate assessment can guide care and improve clinical outcomes. The MPI is validated in acute and chronic conditions and predicts mortality post-discharge.

**PRIMARY OBJECTIVES:** To determine whether an intensive inpatient cardiac rehabilitation program reduces the proportion of high-risk (MPI class 3) patients between admission and discharge.

**SECONDARY OBJECTIVES:** • Compare high-risk prevalence by index cardiovascular event. • Assess the MPI's prognostic value at admission. • Evaluate intervention durability at 3-month follow-up via TELE-MPI.

**MATERIALS AND METHODS:** This low-intervention interventional study began in April 2024 at Cardiology Unit of ICS Maugeri, IRCCS of Bari, with ethics approval and informed consent. Inclusion criteria were: age  $\geq 65$  years, admission to in-hospital intensive cardiac rehabilitation after an acute cardiovascular event: acute coronary syndrome (ACS), decompensated heart failure (HF), cardiac surgery (CS), recent percutaneous intervention (PCI) without ACS, or other cardiovascular acute events. Exclusions criteria were: inability to cooperate or limited life expectancy ( $\geq 50\%$  1-year mortality). MPI was administered within 72 hours of admission, at discharge, and at 3-month follow-up (TELE-MPI). It includes 8 domains: ADL, IADL, ESS, SPMSQ, MNA-SF, CIRS-CI, number of medications, and living situation. Risk profile was classified on the basis of the MPI score according to the following cut-off: • MPI 1 (0.00–0.33): low risk • MPI 2 (0.34–0.66): moderate risk • 3 (0.67–1.00): high risk The TELE-MPI includes Barthel Index in place of ESS and uses the same scoring. At admission the following data were collected: demographics, comorbidities, vital signs, ECG, echocardiography and blood tests (complete blood count, albumin, creatinine, electrolytes, lipids, glucose, iron). Adverse events have been recorded and analyzed in relation to MPI class: in-hospital mortality, clinical deterioration requiring ED transfer, falls, HAIs (onset  $\geq 48$ h), and delirium. Results: Seventy-nine consecutive patients were enrolled (mean age  $75.96 \pm 3.64$  years; 38% female), index events were: cardiac surgery (57.1%), ACS (27.3%), AHF (15.6%). At admission, 20.25% (6 subjects CS, 4 HF, 6 ACS) were classified as high-risk patients (MPI class 3); at discharge 2.53% patients were classified at high risk ( $p=0.002$ ). At 3-month TELE-MPI, high-risk patients declined further to 1.27% ( $p=0.002$ ). In particular, risk class changes were: 3.64% worsened, 76.36% improved, and 20% unchanged. In addition, a total of 30 adverse events have been reported, which are distributed in the 3 risk classes as follows: MPI class 1: 5 infections; MPI class 2: 17 infections, 2 ED transfers, 1 fall, 2 delirium; MPI class 3: 1 infection, 1 delirium.

**CONCLUSIONS:** Preliminary findings support the primary hypothesis of the study: intensive rehabilitation significantly reduces high-risk MPI classification (20.25%  $\rightarrow$  2.53%). Improvement appears durable at 3 months (1.27% high risk). Frailty distribution was similar post-surgery and post-ACS. MPI's role in predicting in-hospital adverse events requires further analysis.

### **BPSD AND ALZHEIMER'S, PRESENTATION OF A PARTICULARLY COMPLEX CASE**

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**INTRODUCTION:** The control of behavioural disorders in dementia is often an overly complex problem in clinical practice. It is often necessary to resort to a combination of non-pharmacological and sometimes pharmacological therapies to ensure the well-being and safety of the patient and those who care for them. Non-pharmacological therapies require specific skills from all caregivers involved in the patient's care. Pharmacological therapies, instead, can sometimes be beneficial, but they are often associated with potentially serious side effects.

**CLINICAL CASE:** Mrs. MBM, aged 77, suffering from major neurocognitive disorder due to Alzheimer's disease, arrives at the Alzheimer's unit of the Nursing Home L. Feroldi in Brescia in August 2024. The patient presents a serious state of agitation characterised by restless activity during both daytime and nighttime, extreme irritability, and verbal and physical aggression. During the previous months, geriatricians and psychiatrists prescribed phar-

macological therapies with haloperidol, risperidone, promazine, and trazodone, however, treatment had to be suspended due to adverse and paradoxical effects. At the time of admission, the therapy involved physical restraint and pharmacological therapy with quetiapine 200 mg/day, lorazepam 5 mg/day and diazepam 10 mg administered intramuscularly as needed. The Mini Mental State (MMSE)=0/30, Neuro Psychiatric Inventory (NPI)=55/144, Cohen-Mansfield Agitation Inventory (CMAI)=94/203. Functionally: Barthel Index (BI)=0/100 and Tinetti Balance and Gait Scale=3/28. Extreme aggression towards staff and other residents destabilised life in the unit. We decided to address the situation by deepening the Gentlecare training of the staff, introducing "non-human caregivers" mediators, and removing all physical restraints. The team explored the life history of Mrs. MBM and sought a therapeutic alliance with her son. From the personal history of Mrs. MBM emerged a significant event that could justify the patient's agitation in front of closed doors and the distrust towards unknown people. Additionally, learning that her former occupation forced her to work frequent night shifts convinced the staff not to insist on nighttime rest. The need for safety and protection led to the indication to modify access to the room, creating an ad hoc soft corner, allowing her to be alone, but with opportunities for staff to monitor her. In the meantime, we gradually suspended all pharmacological therapy. The first result of this approach was a decrease in the intensity of aggression. At the suspension of quetiapine, the patient began experiencing visual hallucinations. Persistent restlessness and resistance to hygiene care persisted. We therefore decided to start pharmacological therapy with brexpiprazole, an antipsychotic partial agonist of the D2 and 5-HT1A receptors and antagonist on the 5-HT2A receptors. This profile allowed a different approach compared to drugs such as haloperidol and risperidone, and even quetiapine, which exert an antagonistic action on the D2 receptor and are ineffective. We started therapy with brexpiprazole at a dosage of 1 mg in a single daily administration and then increased on the third day to 2 mg/day. Aggression decreased rapidly and was completely controlled after 15 days of therapy. Hallucinations disappeared. At the re-evaluation after two months from admission, there was an improvement in behavioural and psychotic symptoms (NPI=31/144, CMAI=48/203), along with initial improvements in autonomy and mobility (BI=5/100, Tinetti=12/28), and no variations in cognitive status. Over time the condition stabilised, with only daytime wandering and partial nighttime insomnia persisting. After 6 months, the results were as follows: MMSE=0/30, NPI 20/144, CMAI 36/203, BI 12/100, Tinetti 17/28. After one year, the patient was therefore able to spend a day at home with her husband and children, returning to the facility in the evening without complications.

**CONCLUSIONS:** Only the commitment of the entire team, overcoming the sense of helplessness and fear, allowed us to implement all necessary measures to restore a sense of serenity and safety to Mrs. MBM and her family. The behavioral approach based on the "Gentlecare" principles was an essential element to guarantee safety to the staff and a sense of protection to the patient. In the case presented, Brexpiprazole proved to be a therapeutic option capable of controlling the psychotic aspects of the disease and the aggressive behaviour, without any evident side effects six months after the start of treatment.

### **A "COLD CASE" OF MYXEDEMA COMA IN A GERIATRIC PATIENT**

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**INTRODUCTION:** Myxedema coma (MC) is a rare, life-threatening complication of severe, decompensated hypothyroidism, often presenting in elderly individuals with multiple comorbidities. It is characterized by altered mental status, hypother-

mia, bradycardia, hypotension, and other systemic manifestations, resulting in high mortality rates (30-50%) if untreated. This condition is frequently under-recognized in the elderly due to the overlapping symptoms with other common geriatric emergencies, such as sepsis and cerebrovascular accidents. This case highlights the challenge of diagnosing and treating myxedema coma in an elderly male with underlying Alzheimer's disease and ischemic cardiomyopathy, triggered by amiodarone therapy.

**AIM:** To present a case of myxedema coma in a 77-year-old male with multiple comorbidities, emphasizing the diagnostic challenges, management strategies, and therapeutic options in geriatric patients.

**MATERIALS AND METHODS:** A 77-year-old male was admitted to the emergency department with suspected stroke, presenting with altered mental status, dysarthria, hypothermia (30°C), bradycardia (45 bpm), hypotension (80/60 mmHg), and non-pitting edema. His medical history included Alzheimer's disease, chronic renal failure, ischemic cardiomyopathy due to STEMI, and paroxysmal supraventricular tachycardia (PSVT) treated with amiodarone. Upon admission, his vital signs and laboratory values suggested severe sepsis. After initial resuscitation and stabilization, further investigation revealed severe hypothyroidism (TSH 124.3  $\mu$ U/ml, FT4 0.28 ng/dl), prompting suspicion of myxedema coma. The Myxedema Coma Score was 70. The patient was managed with low-dose oral levothyroxine (LT4), intravenous hydrocortisone, and supportive care.

**RESULTS:** Initial management included fluid resuscitation, antibiotic therapy, and vasopressor support. Despite initial improvement, the patient's symptoms persisted, particularly bradycardia, hypothermia, and somnolence, which led to consultation with an endocrinologist. Oral LT4 was initiated at a dose of 50 mcg, gradually increasing to 75 mcg, alongside intravenous hydrocortisone. Within several days, the patient's vital signs improved, with heart rate stabilizing at 75-80 bpm, and body temperature increasing to 36-36.5°C. The patient's cognitive state also showed mild improvement, although his baseline cognitive decline due to Alzheimer's disease persisted. Blood counts revealed mild anemia and thrombocytopenia, which normalized with supportive care. The patient's thyroid function tests showed significant improvement by discharge, with TSH reducing to 32  $\mu$ U/ml and FT4 rising to 0.56 ng/dl. After stabilization, the patient was transferred to a rehabilitation facility for further care. His clinical course highlights the diagnostic difficulty of myxedema coma in elderly patients, especially when presenting with cognitive decline due to Alzheimer's disease and a complex medical history.

**CONCLUSIONS:** Myxedema coma is a critical condition that requires early recognition and management, particularly in the geriatric population where symptoms can overlap with other common illnesses. The treatment for myxedema coma typically includes thyroid hormone replacement and corticosteroids. While intravenous levothyroxine is preferred in severe cases, oral levothyroxine can be an effective alternative in less severe cases, as shown by this patient's recovery. Geriatric patients with multiple comorbidities and cognitive decline, such as Alzheimer's disease, pose a unique challenge in the timely diagnosis of myxedema coma. Our case suggests that careful management with a slow and controlled initiation of thyroid hormone replacement may be appropriate to minimize cardiovascular risks in fragile elderly patients. Further studies are needed to refine treatment protocols for elderly patients with myxedema coma.

### **A CLINICAL CASE OF WILD-TYPE TRANSTHYRETIN CARDIAC AMYLOIDOSIS IN THE ELDERLY: DIAGNOSTIC CLUES UNCOVERED**

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**INTRODUCTION:** Wild-type transthyretin cardiac amyloidosis (ATTRwt) is a protein deposition disease that primarily affects the myocardium. Although historically classified as rare, ATTRwt is increasingly recognized due to advances in epidemiological, pathophysiological, and therapeutic understanding. In individuals over 65 years of age, the average time to diagnosis exceeds three years and often involves around 17 specialist consultations. We present a clinical case where the diagnosis was prompted by the identification of characteristic clinical "red flags." **Objective** To describe a complex case of ATTRwt in a patient with chronic heart failure and multiple comorbidities, emphasizing the importance of recognizing early warning signs to facilitate timely diagnosis and treatment.

**MATERIALS AND METHODS:** A 75-year-old male, independent in both basic and instrumental activities of daily living (ADLs and IADLs), presented to the Emergency Department with recurrent presyncopal episodes. Past medical history included chronic heart failure, rupture of the long head of the biceps tendon, and lumbar spinal stenosis. Electrocardiogram revealed ventricular overload and left axis deviation. A focused echocardiogram showed increased left ventricular wall thickness with reduced ejection fraction. Arterial blood gas analysis showed no respiratory failure, and compression ultrasound of the lower limbs was negative for deep vein thrombosis. The combination of clinical signs and symptoms raised suspicion for cardiac amyloidosis, which was subsequently confirmed by bone scintigraphy showing mild cardiac uptake (Perugini grade 2). Genetic testing via salivary swab ruled out hereditary forms of amyloidosis.

**RESULTS:** The diagnosis of wild-type transthyretin cardiac amyloidosis was confirmed. The presence of chronic heart failure, atrial fibrillation, lumbar spinal stenosis, biceps tendon rupture, and orthostatic hypotension, an early and important symptom, provided strong clinical indicators suggestive of amyloid protein accumulation in the heart.

**CONCLUSIONS:** Cardiac amyloidosis is frequently underdiagnosed in elderly patients with chronic comorbidities, as its symptoms often overlap with more common conditions, making differential diagnosis challenging. Recognition of specific red flags, such as lumbar spinal stenosis, bilateral carpal tunnel syndrome, and orthostatic hypotension, is crucial for raising clinical suspicion and initiating the appropriate diagnostic and therapeutic pathway.

### **ME MORE - WIDESPREAD ARCHIVE OF SAVED MEMORIES**

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"ME More – Widespread Archive of Saved Memories" is an interdisciplinary project that explores the relationship between autobiographical memory, urban space, and mild cognitive impairment, with the aim of building a new form of participatory and inclusive representation of the city. Developed within the Cognitive Disorders and Dementia Center (CDCD) of the DSS ASL Bari and promoted by CARD Puglia, the project collects the autobiographical memories of people with mild cognitive impairment and transforms them into narrative and transmedia materials geolocated through an alternative map of the city of Bari. This process creates a public discourse in which fragmented individual memories are recomposed into a collective narrative, restoring meaning to urban spaces and visibility to vulnerable individuals. The project integrates anthropological, sociological, and neuropsychological approaches to build a replicable model of a city of memory.

**INTRODUCTION:** The theme of memory has gained increasing relevance in medical and social sciences, prompting critical reflection not only on its clinical aspects but also on its

anthropological, social, and territorial implications. ME\_More arises from a simple yet radical question: is it possible to create culture through autobiographical memory at risk of being lost? Can memory become a starting point to rethink urban life, giving voice and dignity to those losing it by making it public heritage?

**TARGET:** To analyze how the autobiographical memory of people with mild cognitive impairment can be used to create a collective and alternative representation of urban space, contributing to the design of inclusive cities through the interdisciplinary integration of knowledge.

**MATERIALS AND METHODS:** The ME\_More project involved people with mild cognitive impairment, their caregivers, medical professionals, social workers, and young volunteers. Through semi-structured interviews and autobiographical workshops, five stories related to significant places in the city of Bari were experimentally collected. The memories were transcribed, digitized, and linked to QR codes. These codes allow access to audio recordings of the informants' stories, accompanied by archival images from family photo albums.

**RESULTS:** Three places in the city were initially mapped. Each QR code links to audiovisual content in which the witnesses narrate their memory. The content was made accessible to the entire population, fostering intergenerational interactions, particularly between older adults and university students who helped in conducting the interviews. Qualitative analysis highlighted the therapeutic value of narrative and the ability of places to reactivate latent episodic memories. Results are partial, and the project's duration is defined by reaching at least 15 interviews.

**CONCLUSIONS:** ME\_More proposes an alternative model of urban narrative, in which the city is not only a built space but also a narrative fabric. Integrating the memories of people with mild cognitive impairment into public discourse means recognizing their capacity to participate in city life. The project promotes a relational logic and active citizenship. Furthermore, it proves to be a useful tool for urban design, suggesting guidelines for an inclusive city.

### ARE WE MISSING THE MUSCLE? A SURVEY ON GERIATRICIANS' SARCOPENIA EXPERTISE

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**INTRODUCTION:** Sarcopenia is a medical condition described as a loss of skeletal muscle mass and function. Its prevalence in the older population goes from 10% in community-dwelling people, up to 40-50% among those living in nursing homes. A group of specialists in the field has suggested an algorithm for the diagnosis of sarcopenia, concerning probability scores, clinical assessment, and imaging resources (1). Knowledge of the topic is of close interest to the geriatric community, as sarcopenia is linked to worse health outcomes (2).

**AIMS AND METHODS:** A survey has been projected to investigate geriatricians' familiarity with the clinical and diagnostic features of sarcopenia. Specific questions have been proposed according to the main setting of work of the respondent (hospital or territory). Interest in the topic in specific clinical circumstances has been investigated. The implementation of treatment measures has been taken into consideration. The survey will be submitted to all SIGOT members, with some potential respondents equal to almost 1000 geriatricians (specialists and residents). A pilot sample (n=30) will be defined for a pre-test of the questionnaire. Data will be analyzed through multivariate techniques and disseminated via society's channels and the produc-

tion of scientific works. According to the results, education and training seminars will be proposed.

**EXPECTED RESULTS:** We expect that the knowledge of sarcopenia and the familiarity with its diagnosis and treatment may depend on professional setting of work (hospital or territory) and on the professional status (early career *versus* experienced specialists). We expect that the diagnostic path may vary and some discrepancies between diagnosis and treatment may be observed. We are also interested in mapping differences on a geographical level.

**CONCLUSIONS:** The research defines the state of the art regarding geriatricians' knowledge of sarcopenia by investigating various aspects from a multivariate point of view. This evidence will be propaedeutic to shed light on sarcopenia and foster awareness in diagnosing and treating this syndrome throughout the national borders.

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### THE PHARMACOLOGICAL THERAPY OF NEUROCOGNITIVE DISORDER IN ALZHEIMER'S DISEASE. CLINICAL OBSERVATION AT ONE YEAR OF THE EFFECTS IN THE DIFFERENT AGE GROUPS

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Alzheimer's dementia (AD) is one of the main diseases related to aging. The drugs authorized according to the AIFA note in the context of the AD to date have the function of slowing down the course of the disease; however, it often happens that the use of these drugs is considered risky or even useless for elderly patients with various associated pathologies and in polypharmacotherapy.

**MATERIALS AND METHODS:** This observational and retrospective study was conducted on patients referred to the geriatric CDCD (CER42) of the Policlinico di Sant'Orsola IRCCS. In 2023, 1742 visits were performed, of which 634 were the first visits to which in 53% of cases a diagnosis of minor neuro-cognitive disorder (MCI average age 80.6 years) and in 25% of cases a diagnosis of neurocognitive disorder type AD (average age 84.5 years) was made and to whom a drug was prescribed including memantine, rivastigmine, donepezil or galantamine. The aim of the study is to evaluate, in two age groups >79 years and <80, the tolerability of the therapy and at one year the response in terms of change in the score of the MMSE, ADLs, IADLs, any behavioral disorders by filling in the NPI and the deflection of mood by GDS.

**RESULTS:** Of the 231 treatment plans (PTs) provided in 2023, 97 PTs were taken into consideration for patients diagnosed with neuro-cognitive disorder type AD at the 1st visit and who had the 1-year follow-up visit by October 2024. Among these, 85 continued with the prescribed drug therapy until the check-up at 12 months, another 12 instead discontinued the therapy and of these 11 were aged >79 years and only 1 was under 80 years old. Of the 85 patients considered, 26 were men (31%), 58 women (69%); 58 patients (69%) were aged >79 years, 26 <80 years (31%). As regards the number of associated pathologies, we divided patients into two groups: those with a number of pathologies from 0 to 2 and those with more than two associated pathologies and therefore with a condition of multimorbidity; 50 patients fell into the first group, 34 into the second. As regards the general characteristics of the patients at the first visit, the average of the MMSE was 19.; the

average of the ADLs was equal to 4 of the IADLs 2.5 the average of the NPI values was equal to 26 (with a minimum of 1 and a maximum of 79), of the GDS values the average was 4 (from 0 to 14). Analyzing the response to therapy, in the age group >79 years, 72.4% had stable or improving scores (in particular, 65.5% were stable, 6.9% showed improvement). The trend of response does not vary for an age <80 years, in fact, even in this case, about 27% had a worsening of the MMSE at one year, while the remaining 73% were overall stable and/or improved. The group of patients with >2 pathologies had a lower rate of progression than the group with fewer comorbidities. The intake of antipsychotics did not determine significant differences with regard to the progression of the disease understood as a reduction in the MMSE score in worsened patients compared to the stable and improved group.

**CONCLUSIONS:** The diagnosis of AD in our sample is still late, in fact patients with MMSE that is still low (19.4) *i.e.* compatible with moderate cognitive disorder come to the first visit. Only 12 of those treated had side effects, especially in the older age group. 75% of patients treated have stability and improvement in cognitive appearance at one year regardless of the age group to which they belong. Having a number of pathologies greater than 2 should not be a limitation for the prescription of therapy because patients if treated have a very low rate of disease progression compared to those less comorbidized. Therefore, both age and comorbidity should not represent a limitation of prescription for this therapy, currently the only one available, to determine the clinical, cognitive and behavioral stability of patients.

#### **BULLOUS PEMPHIGOID AND COGNITIVE IMPAIRMENT IN ELDERLY PATIENTS: A CASE REPORT OF TWO PATIENTS HIGHLIGHTING THE POSSIBLE LINK WITH NEURODEGENERATION**

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The link between the nervous system and the skin is well established, and clinical evidence supports an association between neurological disorders and inflammatory skin diseases, particularly in the elderly [1]. Bullous pemphigoid (BP) is the most common autoimmune blistering disorder, primarily affecting older adults with comorbidities. BP is strongly associated with neurologic diseases including dementia, Parkinson's disease, and stroke [2]. Risk factors include advanced age, neurologic disease, and certain medications (*e.g.*, neuroleptics, diuretics). BP is characterized by autoantibodies targeting hemidesmosomal proteins BP180 and/or BP230, leading to subepidermal blistering [3]. We report two cases of elderly patients with neurocognitive impairment and BP, hospitalized in the University Internal Medicine Unit of the Policlinico of Bari.

**CASE 1:** A 78-year-old female with Lewy body dementia developed widespread pruritic erythematous and bullous lesions. She was on quetiapine, trazodone, and citalopram. Physical exam revealed widespread erosive bullae. Direct immunofluorescence (DIF) showed IgG and C3 deposition at the basement membrane. ELISA confirmed positivity for anti-BP180 (171.6 UA/ml), with negative BP230. Histology revealed dermo-epidermal detachment with eosinophilic infiltrate. The patient responded to systemic corticosteroids, though a flare occurred during tapering.

**CASE 2:** An 81-year-old male with mild cognitive impairment and Meniere's disease presented with fever and bullous lesions on the limbs. He was on lorazepam. DIF was not available. ELISA showed both anti-BP180 (80.7 UA/ml) and BP230 (28.7 UA/ml) positivity. Histology showed subepidermal blistering with

eosinophilic infiltrate; although initially suggestive of pemphigus, the clinical and serological findings confirmed BP. Corticosteroid and antibiotic therapy led to full resolution without relapse. These cases illustrate the clinical variability of BP and its potential association with neurodegenerative diseases. Literature suggests that neurologic comorbidities may influence the immune response in BP, with increased anti-BP230 seropositivity and eosinophilia observed in patients with cognitive decline [4][5]. Proposed mechanisms include shared pathophysiological factors (*e.g.*, aging, inflammation), ectodermal origin of skin and nervous tissue, and autoantibody cross-reactivity with neuronal BP antigen isoforms [6][7]. Limitations include the small sample size, lack of standardized cognitive testing, absence of DIF in one case, and possible confounding factors such as polypharmacy and comorbidities. Nonetheless, these cases support the hypothesis that neurodegeneration may modulate BP phenotypes, warranting further research. Written informed consent was obtained from patients' legal guardians for use of clinical data and images.

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#### **HOME CARE MANAGEMENT IN THE CONTEXT OF MINISTERIAL DECREE 77/2022: A NEW PARADIGM FOR COMMUNITY HEALTHCARE, THE CENTRAL ROLE OF THE GERIATRICIAN IN HOME CARE MANAGEMENT**

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Ministerial Decree 77/2022 represents a key milestone in the reorganization of territorial healthcare in Italy, as part of the implementation of the National Recovery and Resilience Plan (PNRR). At the heart of the new model is home-based care, understood as an integrated and personalized set of health, social-health, and care services provided directly at the patient's home. This approach aims to ensure continuity of care, proximity, equity, and a person-centered focus, especially for chronic, frail, and non-self-sufficient patients. According to Decree 77, home-based care is coordinated by Territorial Operations Centers (COTs) and involves multiprofessional teams working in synergy with General Practitioners, local Health Districts, and the Social Services of the patient's municipality of residence. The strengthening of home care services aims to reach at least 10% of the population over the age of 65 by 2026, and represents one of the main organizational and cultural challenges for the National Health Service. It promotes interventions that go beyond simple healthcare, including prevention, rehabilitation, and social support. This approach more effectively addresses the needs of an increasingly

elderly population with chronic diseases and comorbidities, while also reducing inappropriate hospital use and promoting de-hospitalization and care within the individual's living environment. In this context, the role of the specialist in geriatrics is crucial for proper care management, due to their ability to integrate the various services. However, even today, some district home care services (CADs) lack this specialist figure. Home care management is based on a multidisciplinary and interprofessional approach, involving GPs, municipal social services, and the local health district. The service is activated through the completion of the regional unified form (SUS), which is sent to the COT-D (Territorial Operations Center – District) of the patient's area of residence to initiate the most appropriate care pathway. Subsequently, the District Multidisciplinary Evaluation Unit (UVM) organizes a home visit with the CAD team (doctor, nurse, physiotherapist), and if there are social issues, also with a social worker, in order to ensure a comprehensive care plan. The service providers are then selected, and service delivery is arranged. In this context, home care takes on a central role in redefining the organization of health and social-health services, with the goal of ensuring more timely, integrated, and patient-centered care. It goes beyond the mere delivery of isolated health interventions at home and is instead configured as a continuous, proactive, and personalized process involving a network of professionals and services. In conclusion, the reform outlined in Ministerial Decree 77/2022 marks a turning point in the Italian care model, shifting the focus of healthcare from hospitals to the community, and from disease treatment to health promotion and quality of life. However, the full implementation of this model requires investment not only in infrastructure, but also in culture and training, so that healthcare professionals and institutions are equipped to meet the challenges of future healthcare. The main challenge lies in the ability of Local Health Authorities (ASLs) to effectively implement these models through the reorganization of processes, staff training, the activation of new territorial governance tools, and the overcoming of service fragmentation. The success of home care management will therefore depend on the system's ability to work in an integrated, flexible way, oriented toward health outcomes for the population. In this framework, the role of the geriatrician is crucial, precisely due to the specific nature of their specialty.

### PHYSICAL EXERCISE AND OCCUPATIONAL THERAPY WHILE TREATING HYPERTENSION IN FRAIL ELDERLY PATIENTS WITH COGNITIVE DECLINE

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**OBJECTIVES:** The study focuses on the evaluation of effects on blood pressure (BP) control of a life-style including physical exercise and of occupational therapy in the Activities of Daily Living (ADL) and in the Instrumental Activities of Daily Living (IADL) in elderly subjects affected by cognitive decline.

**DESIGN AND METHODS:** 43 elderly people were included (M 19, F 24, average age 75±8) all affected by mild-moderate hypertension and mild-moderate cognitive decline. The design of the study included tests performed before and after follow-up such as: 1) Clinical measurement of BP; 2) Ambulatory blood pressure measurement (ABPM); 3) Mini Mental State Examination (MMSE); 4) Activities of Daily Living (ADL); 5) Instrumental Activities of Daily Living (IADL). Clinical measurement of BP resulted from an average of 3 measurements taken at 5 minutes distance. Mean MMSE score was 16.7±3.3. In the group 21 subjects showed an ADL score <3, 27 had IADL <4. All subject were prescribed a hypocaloric and hyposodic diet. They were also proposed an aerobic exercise schedule including walking and muscle stretch-

ing on a 3-4-times-a-week basis combined with an occupational therapy programme for the improvement of ADL and IADL.

**RESULTS:** Before and after follow-up we detected: 1) Blood pressure SBP 157±22 vs. 137±15 mmHg (p<0.01); DBP 95±14 vs. 86±15 mmHg (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:** A life-style including physical exercise and occupational therapy applied to elderly subjects with mild-moderate cognitive decline determined a reduction of BP and an improvement in self-sufficient ability in instrumental activities of daily living (IADL) and activities of daily

### INDICATORS OF CLINICAL PROGRESSION IN HEART FAILURE. PRECLINICAL FRAGILITY AND CLINICAL FRAGILITY: A CASE REPORT IN AN OLD PATIENT

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**INTRODUCTION:** Frailty is a multifactorial syndrome characterized by a reduction in physiological reserve and the ability to resist environmental stressors. The frail patient is usually an elderly subject, often affected by multiple pathologies and on polypharmacy, with an unstable state of health, in which the effects of aging and diseases are often complicated by socioeconomic issues. Frailty is identified in 25% to 50% of patients with cardiovascular diseases and in approximately half of patients with heart failure. In patients with both chronic and stabilized acute heart failure and in subjects with ventricular devices, frailty is associated with greater severity of the cardiac picture and greater clinical complexity, as well as increased mortality and hospitalization.

**AIM:** The aim of this case report presentation was to compare the predictive role of Fried and Rockwood frailty indices in clinical progression and prognostic risk of mortality at 1 year in heart failure.

**MATERIALS AND METHODS:** The patient in this case was an 85-year-old woman residing at home with her family. She had a history of atrial fibrillation, arterial hypertension, heart failure in NYHA class II, previous surgery for colon cancer, psoriasis, MGUS in follow up. She was followed for three years. We have subjected her to a multidimensional evaluation through the Multidimensional Prognostic Index (MPI: Prognostic risk of mortality at 1 year: 0-0.33 low; 0.34-0.66 moderate; 0.67-1.00 severe). We furthermore used: A) The Fried Frailty Index in which frailty is a clinical syndrome in which three or more of the following criteria are met: involuntary weight loss, individual psycho-emotional stress, decreased strength by measuring the grip (hand grip), slowness in walking and little physical activity. The presence of one or two criteria determines a picture of pre-frailty. It is a yes-no model based on five subcategories. Each subcategory is assigned a score of 0 (no) or 1 (yes). An individual is assumed to be frail if he or she has a score higher than 3. The score is as follows: 0-1=not frail; 1-2=pre-frail; 3+=frail (mild, moderate and severe). The five categories are: 1) Physical inactivity. 2) Low muscle strength (can be measured by grip strength – <21 kg in men and <14 kg in women). 3) Slow gait speed (less than 0.8 m/s with or without a walking aid). 4) Exhaustion/fatigue (is self-reported). 5) Weight loss (loss of 4.5 kg or more in 1 year). B) Rockwood Frailty Clinical Index (further developed by Geriatric Medicine Research, Dalhousie University). The Clinical Frailty Scale is a simple and accessible tool that can be used to quickly and easily assess frailty. It has been validated in adults over the age of 65. It is scored from 1 to 9 based on descriptions and pictograms of activity and functional status: 1 (very fit); 2 (well); 3 (managing well); 4 (vulnerable); 5 (mildly frail); 6 (moderately frail); 7 (severely frail); 8 (very severely frail); 9 (terminally ill). Special attention should be paid to those who score 5 or higher (indicator of frailty).

**RESULTS:** At the beginning of the observation the patient was

85 years old, the NYHA class was II; the Fried Frailty Index indicated a score of 1 (no frail) while the Rockwood frailty index concluded for a score of 4 (vulnerable). Prognostic risk of mortality at 1 year: 0.22 (low). After 3 years the NYHA class was III; the Fried Frailty Index indicated a score of 2 (pre-frail) while the Rockwood frailty index concluded for a score of 6 (moderately frail). Prognostic risk of mortality at 1 year: 0.60 (moderate).

**CONCLUSIONS:** The Rockwood “CLINICAL” frailty index is able to significantly predict the clinical progression and prognostic risk of mortality at 1 year of heart failure compared to the Fried “PRE-CLINICAL” frailty index.

### **PREOPERATIVE FACTORS, POST-SURGICAL CONDITION AND FUNCTIONAL OUTCOME AFTER REHABILITATION FOR LOWER-LIMB JOINT REPLACEMENT IN ELDERLY PATIENTS**

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**BACKGROUND AND AIM:** Knee and hip arthroplasty (KA, HA), are widely diffused techniques to manage pain and dysfunction for osteoarthritis (OA), or repair hip fractures (HF). In Italy, the numbers have grown over the last decades, and a further increase is expected in the future. Preoperative factors that may influence functional recovery have been investigated, with conflicting levels of evidence (1,2). The aim of this retrospective study is to further investigate the role sarcopenia, other patient-related factors and performance indicators on admission to rehabilitation, as possible predictors of functional outcome in patients after KA or HA.

**METHODS:** Population: 71 elderly patients (48 F), consecutively admitted to our inpatient rehabilitation unit after KA or HA from Jan. 2023 to Mar. 2023. Data collected from the clinical records: • Demographic • Preoperative level of functioning • Type of surgical procedure and etiology. • Serum albumin (SA), total protein (TP), BMI and risk of sarcopenia (SARC-F) on admission to rehabilitation • Clinical/functional measures on admission and discharge: Barthel (BI); Handgrip (HG); Tinetti score (TS); Sit-to-Stand (StS); Timed Up and Go test (TUG); 10 meters walking test (10mWT); 6 minutes walking test (6minWT) at discharge; functional ambulation category (FAC); technical aids at discharge; disposition at discharge • Length of Stay in Rehabilitation (LOS) • A follow-up phone call was carried out 6 months after discharge for 40 patients. • A backward stepwise regression analysis between each dependent variable and independent ones that previously demonstrated a significant correlation was carried out identify pre-op and factors on admission that may influence the outcomes. A comparison was made between two groups according to the presence-absence of risk of sarcopenia (SARC-F  $\geq 4$ ).

**RESULTS:** Age: 77,4 years (SD 7.2); Type of intervention: 29 KA; 24HA in OA; 18 HA after HF. 32 pts. (45.1%) were at risk of sarcopenia. BI median: adm. 50, disch. 90; HG mean: adm.27, disch.29. The backward stepwise regression analysis showed a relationship between SA, TP on admission and BI, TS at discharge, and between SA on admission and 6MWT at discharge. In the comparison between low and high risk pts. for sarcopenia, the latter group was older, had lower SA, lower HG and worse BI and TUG on admission, worse BI, HG, TUG, TS 6MWT at discharge and longer LOS. The functional status at follow up was unchanged.

**DISCUSSION AND CONCLUSIONS:** Our findings, based on these preliminary data comes out from the regression analysis, suggests a possible predictive role of SA and TP on functional recovery in patients who undergone to an hip or knee replacement. These data should be confirmed with a CHART analysis in order to develop a predictive flow diagram.

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### **CO-DESIGNING A DEMENTIA PREVENTION TOOLKIT TO PROMOTE ACTIVE AGEING: AN INTERDISCIPLINARY INITIATIVE IN THE MODENA TERRITORY**

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**INTRODUCTION:** Dementia is one of the most pressing public health challenges in ageing societies. Preventive strategies focused on modifiable risk factors and the promotion of active ageing are increasingly recognized as effective approaches. However, translating scientific evidence into accessible and engaging health messages remains a major barrier—especially among older adults with limited health literacy.

**OBJECTIVES:** To co-design a dementia prevention toolkit aimed at promoting active ageing through an interdisciplinary and community-based approach, and to conduct a Health Literacy pathway in a local rural setting to ensure its clarity and comprehensibility for the target population.

**MATERIALS AND METHODS:** An interdisciplinary team—including an occupational therapist, psychologist-psychotherapist, geriatrician, nurse, neuropsychologist, dietitian, and kinesiologist—collaborated to create an informative and motivational dementia prevention toolkit. The content emphasizes evidence-based practical strategies such as physical activity, cognitive stimulation, healthy diet, social engagement, and cardiovascular risk management. A participatory Health Literacy session will be conducted by a trained expert in collaboration with a heterogeneous group of older adults from “Palestra della Memoria,” a community initiative for older people based in a rural area. This group will assess the clarity and usability of the toolkit. Feedback from the participants will be collected and used to revise the material through group discussion, ensuring clarity, cultural sensitivity, and clinical accuracy through a participatory process.

**RESULTS:** Preliminary feedback on the clarity and perceived usefulness of the toolkit has been positive. The participatory review process has already identified specific areas of low comprehensibility and led to simplifications and improvements in wording and structure. The initiative was well received by the citizens involved, who expressed satisfaction in contributing to an innovative and meaningful project. Their input was crucial in ensuring the material is understandable and accessible to its intended audience. Data collected from this phase will inform further refinements and support the development of a clear, effective, and scalable educational tool for dementia prevention at the community level.

**CONCLUSIONS:** This initiative seeks to establish a local best practice in dementia prevention by integrating active ageing principles, community engagement, and Health Literacy. By linking interprofessional collaboration with the empowerment of older adults, the project aims to bridge the gap between prevention evidence and real-life application in geriatric care.

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### LA QUALITÀ DI VITA PERCEPITA DALLA PERSONA CHE VIVE CON DEMENZA IN UNA COMUNITÀ VILLAGGIO: L'ESPERIENZA DEL PAESE RITROVATO

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**INTRODUZIONE:** Il passaggio dalla casa ad un ambiente di cura protetto per la persona con demenza rappresenta una fase critica che può amplificare il vissuto di non competenza ed il disagio della persona. La letteratura sottolinea l'importanza di mantenere il coinvolgimento della persona nel processo decisionale, nelle scelte e nelle attività quotidiane per preservare la qualità della vita (QoL). Valutare la QoL percepita potrebbe diventare uno standard in qualsiasi ambiente di cura, per riuscire meglio a comprendere i bisogni e le aspettative delle persone e per coinvolgere la persona nel progettare la propria vita. Questo studio si propone di analizzare la qualità di vita percepita tra le persone con declino cognitivo che vivono in un contesto non tradizionale di cura, ovvero il villaggio per persone con demenza “Il Paese Ritrovato” di Monza (1) attraverso l'uso dell'intervista strutturata Quality\_VIA (2).

**METODI:** È stata effettuata una analisi retrospettiva di interviste ripetute con lo strumento Quality\_VIA, somministrate ogni 6 mesi alle persone che abitano il “Il Paese Ritrovato”, una comunità villaggio nata a Monza nel 2018. Dal 2019, sono state eseguite 155 valutazioni. La popolazione in studio è composta da 57 persone (età media 83,2±7,1 anni, 73,3% femmine, istruzione media 9,2 anni). Il punteggio medio MMSE al basale è 19,9/30, secondo i criteri di esclusione per sottoporsi alla Quality\_VIA (MMSE >13).

**RISULTATI:** La qualità di vita percepita è risultata in media buona (media 104,7 DS±15.9) e superiore rispetto ai valori di cut-off della scala (Cut off 77.8) Nel tempo, la QoL è generalmente stabile e fluttua all'interno di un range relativamente alto, senza cambiare significativamente con il passare del tempo. La rivalutazione al T1 mostra infatti un incremento del punteggio della QoL, anche se non statisticamente significativo. (media al T1 107,6 DS±15.4 valore p=0,098). Tra le varie dimensioni analizzate dalla scala si osserva un incremento statisticamente significativo nella dimensione dell'autorealizzazione e della spiritualità (punteggio medio a T0= 11,6 DS±2.78 vs. punteggio medio a T1 12,5 DS±2.54 p <0,01). Anche tutte le altre dimensioni indagate mostrano un trend positivo seppure non statisticamente significativo.

**CONCLUSIONI:** “Il Paese Ritrovato” sostiene un modello innovativo di vita comunitaria dementia friendly incentrato sull'autodeterminazione, la valorizzazione e l'inclusione sociale. Nonostante la naturale progressione del declino cognitivo e nonostante la variazione del contesto abitativo della persona, i residenti riferiscono costantemente un'elevata QoL, evidenziando il potenziale del contesto di cura e degli approcci incentrati sulla persona che permeano l'organizzazione del villaggio per preservare il benessere nel tempo. (3) In particolare emerge come gli abitanti della comunità villaggio abbiano nel tempo una più intensa percezione che la loro vita continui ad avere un significato e sia degna di essere vissuta.

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### BETWEEN PRESENCE AND DISTANCE: THE ROLE OF TELEMEDICINE IN HOME-BASED CARE FOR OLDER PATIENT

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**BACKGROUND:** In recent years, telemedicine has played an increasingly central role in healthcare delivery, particularly in the context of home care and during public health emergencies such as the COVID-19 pandemic. Several studies have investigated the perceptions of telemedicine use among patients and healthcare providers. **AIM:** The primary aim of this study is to assess healthcare professionals' adherence to and satisfaction with the use of telemedicine in the context of home care services.

**MATERIALS AND METHODS:** This study adopted an observational cross-sectional design. Data were collected through a survey whose items were entirely based on the work of Donelan *et al.* (2019) and Park *et al.* (2021). The questionnaire was administered to healthcare professionals (psychologists, physiotherapists, nurses, and physicians) working within the home care service of Medicasa Italia. Data collection took place in April 2025.

**RESULTS:** A total of 9 (N=15) healthcare professionals responded to the survey, yielding a response rate of 60%. Of the respondents, 56% (n=5) were healthcare operators, 33% (n=3) were psychologists, and 11% (n=1) was a physician. 78% (n=7) of respondents reported having received specific training in telemedicine. Telemedicine services were provided to 69 patients between February 2022 and February 2025. The patients' mean age was 68 years. A caregiver was present in 100% of telemedicine activities. Female patients represented 57.1% (n=32) and males 42.9% (n=24). The overall perception of virtual visit quality was rated lower than in-person visits in 22% (n=2) of cases and equivalent in 78% (n=7). Regarding the perceived personal connection with patients, 78% (n=7) reported no difference between telemedicine and in-person visits. Clinical observation capacity was reported as significantly limited during virtual visits by 78% (n=7) of respondents. The duration of virtual visits was considered comparable to that of in-person visits by 56% of respondents. All respondents reported understanding the purpose of telemedicine and being aware of its advantages and disadvantages. Only 33% (n=3) of respondents felt able to monitor patients as effectively as during in-person visits, while 56% (n=5) expressed concerns regarding the management of critical events remotely. 78% (n=7) believed they were able to effectively explain clinical conditions via telemedicine, and 86% (n=8) believed that patients had a good understanding of the information provided remotely. All respondents rated the system as easy to use. Overall satisfaction was positive in 89% of cases, and 100% of the respondents expressed willingness to use telemedicine again in the future. All respondents considered telemedicine essential during an emergency, 89% considered its use necessary even in routine care settings, and all supported partial integration with in-person visits.

**DISCUSSION:** Almost the entire sample reported a positive judgment regarding the convenience of telemedicine and their

willingness to use it again, consistent with findings by Donelan *et al.* (2019). Some critical issues remain, particularly regarding clinical observation capacity, consistent with observations by Park *et al.* (2021). Similarly, perceived safety remains a concern: only one-third of respondents felt capable of monitoring patients as effectively as during physical encounters, and more than half expressed concerns about critical events being unmanageable remotely. Despite these limitations, healthcare professionals acknowledged the communicative effectiveness of telemedicine: 78% felt able to explain clinical conditions effectively, and 86% believed that patients understood the information received, indicating a good therapeutic relationship even at a distance. A particularly relevant finding is that 89% support its use even in non-emergency contexts.

**CONCLUSIONS:** This study highlights a broad acceptance and a high level of satisfaction among healthcare providers regarding the use of telemedicine in the home care setting. The results suggest that, although some challenges remain, particularly concerning direct clinical observation and emergency management, telemedicine represents a concrete and valued resource that can be effectively integrated with traditional care modalities. Despite the encouraging findings, the study has several methodological limitations that must be considered: small sample size, possible selection bias, absence of longitudinal data, subjective self-assessment, and professional variability. In conclusion, the study confirms that telemedicine can be a viable opportunity in the field of home care. Further studies with larger samples and longitudinal designs will be essential to validate and refine these findings.

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### UPGRADING THERAPEUTIC EFFECTIVENESS THROUGH OCCUPATIONAL THERAPY APPLIED TO ELDERLY PATIENTS BONE FRAILITY

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**OBJECTIVES:** The study focused on how occupational therapy concurred to strengthening therapeutic effectiveness in elderly patients affected by osteoporosis treated with Denosumab.

**METHODS:** We studied people >75; 43 women (mean age 83±3), 14 men (mean age 85±3), all suffering from femoral osteoporosis T-score <-4. In 34 women and 6 men we discovered 1-2 vertebral fractures. They have been treated with Denosumab 60 mg in a 6-month span of time, Colecalciferol 50.000 UI every 30 days. The design of the study at T0-T24-T48 included: 1) spine and femur bone density scan DEXA; 2) lumbar dorsal spine morphometry. Every 6 months subjects had 1) blood tests (esame emocromocitometrico-protidogramma-calcio-vitamina D-transaminasi-creatinina-FT3-FT4-TSH-Paratormone); 2) Multidimensional evaluation (MMSE-GDS-ADL-IADL-CIRS); 3) Numerical Rating Scale; 4) Tinetti balance and gait Scale.

**RESULTS:** Among several markers At T0 we considered: 1) Geriatric Depression State: mild depression 40.5% p<0.05, severe depression 53.6% p<0.05; 2) Numerical Rating Scale: moderate pain 25.6% p<0.01, severe pain 74.4% p<0.01; 3) Tinetti balance and gait Scale: mean score 10 (high risk of fall) 83.8% p<0.5; mean score 1 (non walking) 16.2% p<0.5). Medical treatment was combined with an occupational therapy

programme: 1) ease usage of walking aids; 2) make the stairs; 3) training to lower limbs mobilization through specific exercises; 4) working on muscle strength to counterbalance muscle loss. At T24 we detected: 1) Geriatric Depression State: mild depression 65.7% p<0.05, severe depression 24.3% p<0.05; 2) Numerical Rating Scale: mild pain 37.3% p<0.01, moderate pain 28.1% p<0.01, severe pain 9.5% p<0.01; 3) Tinetti balance and gait Scale: mean score 21 (low risk of fall) 86.5% p<0.5, mean score 10.7 (high risk of fall) 7.6%. At T0 we detected: MMSE mean score 19.5; mean comorbidity index 3; mean severity index of comorbidity 2.23. Between T24 and T48 no new fractures had occurred. At T48 mean femoral T- score was -2.9.

**CONCLUSIONS:** The study analysed the incidence of vertebral fractures in elderly patients affected by osteoporosis. Frailty markers such as depression, pain and falls were considered. After prescribing Denosumab the upgrade in therapeutic effectiveness through occupational therapy regarding frailty markers levels of severity and in order to grant elderly patients better quality of life has been measured.

### POST-OPERATIVE DELIRIUM: IMPLEMENTATION OF THE NURSING DELIRIUM SCREENING SCALE (NU-DESC) IN THE CARE PROCESS

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**INTRODUCTION:** Delirium is a common complication that can be found in the post-operative course of the patient and the fourth edition Diagnostic and Statistical Manual defines it as characterized by an acute and fluctuating disorder of consciousness with reduced ability to focus, maintain or shift attention, accompanied by changes in cognition and perceptual disturbances secondary to a general medical condition. The NU-DESC (Nursing Delirium Screening Scale) is a rating scale specifically created for nurses, who provide observations 24 hours a day and, therefore, play a crucial role in the detection of delirium. It takes a total of 1-2 minutes to calculate, as it is based on the only observations regarding the patient's behavior. The dimensions that are examined are the 5 main symptoms of delirium, each to be indicated with a score from 0 (absent) to 2 (severe), and goes on to examine disorientation, inappropriate behavior, inappropriate communication, delusions/hallucinations, and psychomotor retardation. As already present in the literature, the incidence of post-operative delirium in the elderly ranges from 10 to 60%. The prevalence is higher in cardiac surgery and orthopedic interventions.

**AIM:** The objective of this study is to evaluate the incidence of post-operative delirium and to identify the patients most exposed to the complication. In addition, the study aims to implement non-pharmacological interventions determined by a well-established care plan, in order to prevent and treat post-operative delirium by implementing the appropriate NU-DESC (Nursing Delirium Screening Scale) assessment tool within nursing reassessments, and to evaluate the possibility of the same tool also for the assessment of the cognitive sphere.

**MATERIALS AND METHODS:** The incidence of post-operative delirium was calculated from the ratio of patients presenting with delirium to the total population analyzed. An accurate statistical analysis was carried out, the chi-square or Fisher test was found to be appropriate for the comparison of categorical variables, while for continuous variables the Student's t-test or the Mann-Whitney test was appropriate.

**RESULTS:** Post-operative delirium is a complication that can sometimes be prevented as early as admission to the ward through a careful analysis of predisposing factors (age, substance abuse, comorbidities) these factors, which exist even before entering the hospital, can decisively affect complications during

hospitalization, especially if associated with precipitating factors, *i.e.* those that are not present before hospitalization but occur due to hospitalization-related causes. The total sample given by 100% is represented by 50.4% by the female sex and 49.6% by the male sex, of which only 5.3% of the total sample is affected by a neurodegenerative disease. The operating unit is mainly represented by orthopaedics, followed by surgery, urology and otorhinolaryngology. 44.3% of patients underwent general anesthesia, 40.5% subarachnoid, in smaller percentages anesthesia with nerve block or sedation were adopted. The ERAS protocol was applied in 34.4% of patients *vs.* 65.6%. The results showed that age, ASA score and the presence of a neurodegenerative disease are highly associated with the development of delirium as they have a significant odds ratio in association with the 95% confidence interval ( $OR > 1$ ).

**CONCLUSIONS:** Delirium usually appears within the first 24 hours after surgery and generally persists up to 48 hours after surgery, however, the symptoms can last for several days. Delirium has been shown to be preventable in up to 40% of cases. The most effective interventions, according to the literature, are based on primary prevention. The assessment of cognitive impairment not only allows the patient to be examined at 360 degrees by implementing the mental point of view, but also to correctly classify patients at the time of nursing re-evaluations and in the choice of the most suitable treatment to be implemented. The use of a tool such as the Nursing Delirium Screening Scale (NU-DESC) gives a very important help to the healthcare professional and the entire team in the identification, monitoring and treatment of post-operative delirium to ensure individualized health care and allows attention to be paid to patients with a greater propensity to develop this complication.

### **TEAM CURE INTERMEDIE TERRITORIALI: UN MODELLO INTEGRATO E STRATIFICATO PER LA PRESA IN CARICO DOMICILIARE DELLE PERSONE AD ALTO BISOGNO SOCIO-CLINICO-ASSISTENZIALE**

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L'invecchiamento della popolazione e la crescente prevalenza di demenza e multimorbilità richiedono un cambiamento strutturale nella gestione territoriale. Il Team Cure Intermedie Territoriale (TCI) della AUSL di Bologna ha sviluppato un modello innovativo e stratificato di presa in carico domiciliare, integrando competenze geriatriche, infermieristiche e sociali. Il modello opera su tre livelli di complessità: consulenza geriatrica a distanza, valutazione multidisciplinare tramite la Centrale Operativa Territoriale e valutazione domiciliare geriatrica tempestiva. L'intervento è attivato su segnalazione del MMG o dei servizi sociali, e tracciato digitalmente tramite la piattaforma "My Sanità". Abbiamo analizzato retrospettivamente 205 pazienti  $\geq 65$  anni seguiti dal TCI tra gennaio 2022 e ottobre 2023. Il campione, con età media di 83 anni, era composto per il 64% da donne. Il 37,6% ha avuto almeno un ricovero ospedaliero, il 31,7% è stato dimesso dal PS senza ricovero, mentre il 30,7% è rimasto stabilmente al proprio domicilio. Il 33,2% è stato trasferito in strutture residenziali, e il 16,6% è deceduto. Il modello ha garantito la permanenza a domicilio in due terzi dei casi, contenendo la pressione sui servizi ospedalieri e favorendo la continuità assistenziale. Questi risultati sono in linea con la letteratura internazionale sull'efficacia della transitional care e delle cure intermedie, che raccomanda un approccio integrato per migliorare gli esiti clinici e l'efficienza del sistema. Il modello TCI, replicabile e sostenibile, è previsto in estensione a tutti i distretti metropolitani entro il 2025.

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