

ID: PT_004

Theme: Latrogenic

Title : Development of a Malaysian Potentially Inappropriate Prescribing (MALPIP) Screening Tool in Older Adults

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Introduction: Polypharmacy and potentially inappropriate medications (PIM) are common among older adults. To identify PIM, healthcare professionals often rely on explicit criteria to identify and deprescribe these PIM. Nevertheless, these criteria may be irrelevant in Malaysia due to differences in drug formularies and prescribing practices. This study aims to develop a list of PIM to facilitate deprescribing in Malaysia.

Methods: The study was a three-step process. A systematic review was performed to identify PIM criteria reported. This was supplemented with pharmacovigilance data from the Malaysian National Pharmaceutical Regulatory Agency (NPRA). Twenty-one experts from nine specialties participated in two Delphi rounds to determine the list of PIM relevant to Malaysia. Any discrepancies were adjudicated with consensus across six geriatricians.

Results: The draft of the PIM list consisted of 102 potential candidates, which was divided into three sections: PIM independent of diseases, disease dependent PIM and omitted drugs that could be restarted. After two Delphi rounds, 92 items were decided as PIM, including common drug classes like H2 receptor antagonists, proton pump inhibitors, sulfonyleureas, antithrombotic agents, and antidepressants. Forty-two disease-specific PIM criteria were included, covering circulatory system, nervous system, gastrointestinal system, genitourinary system, and respiratory system. Consensus to start treatment was also achieved in 34 statements.

Conclusion: This is the first attempt to develop an explicit deprescribing PIM criteria for Malaysia. The newly developed PIM criteria can be used to assist clinicians and pharmacists in identifying PIM during medication review and serve as a guide when prescribing such medications. Clinicians should consider the risk-benefit profile of a particular medication before deprescribing.

ID: PT_005

Theme: Immobility

Title : Factors associated with late hospital arrival in elderly patients with stroke in Hospital Seberang Jaya

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Background: Early treatment is critical in managing acute stroke. Shortening prehospital delay is essential in reducing morbidity and mortality for stroke patients.

Aim: This study investigated factors influencing hospital arrival time after acute stroke onset in the elderly population in the Seberang Perai area.

Methods: The study identified elderly patients (≥ 60 years old) with acute stroke between January 2022 and December 2022 and retrieved their data from the National Neurology Registry Hospital Seberang Jaya. Onset-to-door time was classified into T_{0-1} (≤ 1 hour), T_{1-2} (>1 and ≤ 2 hours), T_{2-3} (>2 and ≤ 3 hours), $T_{3-4.5}$ (>3 and ≤ 4.5 hours), $T_{4.5-6}$ (>4.5 and ≤ 6 hours), T_{6-12} (>6 and ≤ 12 hours), T_{12-24} (>12 and ≤ 24 hours), and T_{24} (>24 hours). Multivariate analyses were performed to identify factors associated with late hospital arrival.

Results: The study included 400 subjects. Only 6.25% of patients arrived at the hospital within one hour of stroke onset, while 35.5% arrived within three hours, and 50.0% arrived within 4.5 hours. Delays in onset-door-time were significantly associated with ambulance service use (37.6%, $p < 0.001$), daytime arrival to the hospital (56.5%, $p = 0.020$), and initial National Institutes of Health Stroke Scale (NIHSS) (3.00 ± 6.00 , $p = 0.028$). In multivariate analysis, factors associated with late hospital arrival were female (Odds ratio [OR], 2.15; 95% confidence interval [CI], [1.31-3.55]), non-ambulance use (OR, 3.04; 95% CI [1.79-5.17]), daytime arrival (OR, 3.10; 95% CI [1.64-5.87]), and low NIHSS (OR, 1.06; 95% CI [1.02-1.10]). These factors were consistently associated with late hospital arrival.

Conclusions: The study highlights the importance of raising awareness about stroke symptoms to encourage timely hospital arrival. Appropriate use of ambulance services is necessary for optimal patient outcomes.

ID : PT_006

Theme: Iatrogenic

Title: Improving Polypharmacy at Geriatric Clinic, Hospital Sungai Buloh: A Quality Assurance Project

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Introduction: Elderly patients on polypharmacy (taking ≥ 5 medications) are more likely to experience drug-drug interaction and iatrogenic adverse drug reactions (ADR). Verification study showed that 76.5% of our elderly patients were on polypharmacy. Failure to address polypharmacy in this high-risk group will lead to hospitalization due to ADR, reduced medication adherence and eventually poor quality of life. This study is conducted to identify factors contributing towards the high prevalence of polypharmacy, to implement effective prevention strategies based on contributing factors identified and to evaluate the intervention strategies implemented.

Method: All geriatric clinic patients were subjected to a cross-sectional study over the course of four months in each cycle using a convenient sampling technique. Data to identify contributing factors was collected by using an audit form by the pharmacists, compiled and analyzed accordingly. The key indicator for improvement was measured using the percentage of geriatric patients with polypharmacy. The standard for this indicator is less than 40% in accordance to the prevalence of polypharmacy in World Health Organization technical report on polypharmacy.

Results: Pre-remedial study showed that 76.5% of the elderly were on polypharmacy. Pharmacist reviews were only done to 52% of patients while pharmaceutical care issues were identified in only 40% of them. We have implemented few strategies that include the development of medication reconciliation checklist, education session, innovation of pop-up pharmacy, conducting one-to-one pharmacist's training and improving the standard of procedure on our work process. We also used patient medication record book named as 'Passport Ubat-Ubatan Saya' (P.U.S.A) and improvised the pop-up pharmacy to GeriPharm Medication Trolley. Post remedial action, the percentage of patients with polypharmacy at Geriatric Clinic has reduced to 54.4% in cycle 1 and has further reduced to 50% in cycle 2. Although we have not successfully achieved our standard of 40%, the percentage for criteria in each critical step showed improvement.

Conclusion: High prevalence of polypharmacy was seen in our clinic population. Interventions to minimize the occurrence of polypharmacy have seen to reduce the percentage of polypharmacy in our patients.

ID: PT_007

Theme: Instability

Title : External Factor of Falls Incidents in Older Adults Nursing Home: A Path Analysis

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Background: Falls are a common incident among older adults in nursing homes (NH) and can result in minor injuries or even death. Older adults who have fallen in the past tend to fall again, and older adults who live in NH experience more falls than those in the community. These falls can be caused by internal and external factors, including environmental, organizational, and management factors. This study aimed to identify the external factors that contribute to falls among older adults in NHs and their direct or indirect effects.

Methods: The study design was a cross-sectional survey. We collected fall incident reports over three months and measured safety culture using the Nursing Home Survey of Patient Safety Culture-Indonesian Version (NHSOPSC-INA) and quality of work using the Measurement of Quality of Work (MQW) survey. We recruited 261 staff members from 11 public and private NHs in Indonesia. We used regression-based path analysis to examine the correlations between demographic characteristics, safety culture, quality of work, and fall incidents.

Results: Linear regression analysis revealed that staff's salary ($p < 0.001$), type of NH ($p < 0.01$), and quality of work ($p < 0.01$) were associated with fall incidents among NH residents. In the conceptual path model, staff's salary, type of NH, and quality of work directly affected fall incidents, while safety culture, education, work position, duration of work, and work experience indirectly affected fall incidents.

Conclusion: Our study highlights the importance of staff's salary, type of NH, and quality of work as external factors that can affect falls incidents among NH residents. These findings can help healthcare providers prevent and reduce falls among older adults in NHs. Understanding the associations between these factors can lead to improved management practices and better working conditions for NH staff, ultimately resulting in better outcomes for NH residents.

ID: PT_008

Theme: Instability

Title : EFFECTIVENESS OF EDUCATIONAL INTERVENTION IN IMPROVING THE AWARENESS OF FALLS AMONG THE GERIATRIC PATIENTS

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Background: Fall incidences are expected to rise tremendously in the future, particularly in Southeast Asia. Since medications are one of the main factors that increase the risk of falling, much research has been conducted globally in recent times to examine the link between medications and falls, however, this area is least focused in Malaysia, especially in primary care settings.

Aim : The current interventional study was aimed to assess the level of knowledge, attitude, and perception (KAP) of falls among the geriatric population, review the fall risk-increasing drugs (FRIDs), provide educational intervention to improve the awareness of falls and FRIDs, and finally to analyse the effectiveness of the pharmacist-led educational intervention.

Methodology : This interventional study was carried out in a primary care clinic setting in Gemas, Negeri Sembilan, Malaysia, using a validated structured questionnaire to assess the KAP of falls. Elderly patients who were 65 years of age or older and seeking medical treatment in the primary care setting were included in the study.

Results: In a total of 310 respondents, the majority of the geriatric patients (n=171; 55.15%) were between 65 and 69 years (mean: 69.72±2.85), 74% (n=229) of them obtained primary-level education, and 97% (n=302) prescribed with four or more medications (mean: 5.18±0.64, p=0.007). More than 95% (n=295) of them were found to have multimorbidity, in which, 45% (n=139) had type-2 diabetes together with hypertension and dyslipidemia. Around 46% of them were living alone or with a partner/caregiver, and 20% experienced falls in the past 12 months. Polypharmacy was commonly seen among the elderly. Ten prescriptions were found to have drug-related problems: prescribing cascade (80%), lack of medicine optimization (10%), and inappropriate prescription (10%). The majority were prescribed with FRIDs drugs namely cardiovascular and endocrine medications, either alone or in combination. The mean KAP of falls among the elderly was suboptimal at baseline, however, it was improved to a significantly satisfactory level during post-intervention (p<0.05).

Conclusion: The educational intervention provided to the elderly population has improved the respondents' KAP to a certain extent. Future health policy must be crafted to address preventive measures to meet the requirements of the aging population.

ID: PT_009

Theme: Others

Title : DESCRIPTIVE STUDY OF OLDER ADULTS WHO HAD RECEIVED INTRAVENOUS THROMBOLYSIS (IVT) FOR ACUTE ISCHEMIC STROKE (AIS)

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Background: Stroke is one of the most common causes of morbidity and mortality globally, and its prevalence doubles every decade after the age of 55. Stroke is Malaysia's third leading cause of death. We aim to describe the characteristics of older adults (age 60 years old and above) who had presented with AIS at Hospital Seberang Jaya (HSJ) and had received IVT for the same in 2022

Aim: To look at the NIHSS & ASPECT score on presentation, stroke subtypes, Charlson comorbidity index, mRs score at day 90 and 1 year after IVT in older adults

Methodology: We included all patients age 60 years old and above who were treated for AIS and received IVT at HSJ during the calendar year 2022. We gathered pertinent information of these patients from the HSJ stroke registry. Data collected included age, gender, NIHSS and ASPECT score on presentation, stroke subtypes as per Bamford classification, door to needle time (DTN), Charlson Comorbidity Index (CCI), blood pressure (BP) and capillary blood glucose (DXT) prior to administration of intravenous alteplase, modified Rankin score (mRs) at 90 days and 1 year after IVT. In addition to that, we also looked at occurrence of secondary intracerebral haemorrhage (ICH).

Results: Out of the 26 older adults who received IVT, majority were male and were age ≥ 65 . Partial anterior circulation infarct (PACI) was the commonest stroke subtype. The age ≥ 65 group had a higher CCI score. The average NIHSS score was 12.6. Among those thrombolysed, 15 of them had ASPECT score above 7. The average DTN was 82.5minutes. Secondary ICH was observed in 5 of them. The average mRs at 90 days and 1 year after IVT was 5 and above in those age ≥ 65 but patients in the 60-64 years old bracket at 90 days and one year had mRs of 3.1 and 3.6 respectively.

Conclusion: Those age ≥ 65 with AIS had higher CCI and NIHSS on presentation. This subgroup of patients were also found to have poorer outcome after IVT as the average mRs at 90 days and 1 year was 5 and above. Further analysis to determine the factors that contribute to poorer IVT outcome in this subgroup of patients is needed.

ID: PT_010

Theme: Immobility

Title : Clinical characteristic of patients with fragility hip fractures at tertiary public hospital in Malaysia

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Background: Fragility hip fractures has devastating effect on quality of life and carry substantial morbidity and mortality. Malaysia is estimated to have highest rate of increase in hip fracture by 2050. Despite the projected increase, studies focusing on clinical characteristic of patients presenting with fragility fractures remains limited in Malaysia.

Aim: To assess clinical characteristics of patients with fragility hip fractures, time to admission and time to surgery at a tertiary public hospital in Malaysia.

Methodology: A retrospective review of charts of 143 patients admitted with fragility hip fractures to Selayang General Hospital, between January 1, 2022 and February 28, 2023. We reviewed medical records of older adults aged more than 65 years old admitted with a non-pathologic/ nontraumatic hip fractures, and evaluated clinical characteristics and the management received.

Results: 81% of patients with fragility hip fractures were within age group of 70-89 years old. 73% of patients were female and 51% were Chinese. 97% of fragility hip fractures occurred in the community meanwhile 3% occurred in residential home. Almost 58% of patients were freely mobility without any aids prior to fracture. Among those presented with fragility hip fractures, 85% sustained indoor falls whereas remaining 15% reported outdoor falls. 66% of the patients reported that this is their first fall whereas remaining 34% were recurrent fallers. Most of the patients had comorbidities such as diabetes mellitus, hypertension, heart failure and chronic kidney disease. Almost 87% of patients were admitted within 24hours following the diagnosis of fracture. Following the admission, 62% (3 out of 5) patients received operative intervention whereas 38% (2 out of 5) patients received conservative management. Among those who received operative intervention, 47% of patients were operated within 2 to 7 days, whereas 44% of patients were operated after 7 days. Only 6.7% of patients received operative intervention within 48 hours of admission. The reasons for delay in operative intervention beyond 48 hours were mainly related to administrative issues such as unavailability of operating theatre (69%), patients were medically unstable (18%), awaiting operative intervention decision by patients and family members (4.8%), awaiting anesthetic team input (3.7%) and financial constraint (2.4%). Among those received operative intervention, 87% patients received regional anesthesia whereas 12% received general anesthesia. During discharge, 92% of patients received calcium supplements and vitamin D, 50% of patients received bisphosphonates, 2% received denosumab whereas almost 47% of patients did not receive any of anti-osteoporotic medications. Almost 68% of patients had more than 1 week of stay in hospital whereas 32% of patients were discharged within first week of admission. Finally, 78% of patients returned to their home, whereas 14% of patients were institutionalized, 1.4% of patients were transferred to medical wards for further management of acute medical conditions and 4.9% were transferred to rehabilitation unit.

Conclusion: A large care gap in the management of patients admitted with fragility hip fractures persists despite clear national osteoporosis guidelines. This study provides a strong impetus for establishing and monitoring a fracture liaison service to understand and address barriers to providing optimal care to patients with fragility hip fractures.

ID: PT_011

Theme: Immobility

Title : THE FEASIBILITY OF AN EXERCISE PROGRAMME TO PREVENT ACUTE SARCOPENIA AMONG HOSPITALIZED OLDER PERSON

Authors: Hasleezan Arifin¹, Dr Terence Ong Ing Wei¹

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Background: Acute illness and hospital immobility can cause acute sarcopenia, which has negative health consequences. Sarcopenia could be mitigated via exercise.

Aim: To evaluate the feasibility of implementing an exercise program 'Preventive Exercise Activities for Acute Sarcopenia in the Elderly' (P-EASE), among older people who were admitted due to acute illness.

Methodology: Patients who were admitted to a geriatric ward of a university hospital and fulfilled the eligibility criteria were enrolled (able to sit independently for at least 10 minutes, walk with or without aids, able to follow two-step command). P-EASE consisted of 12 structured, supervised functional exercises ranging from sitting and chair transfer to walking activity, to be completed daily on weekdays until discharge. A physiotherapist provided supervision throughout the exercise routine and documented the exercises performed, repetitions completed, and any adverse effect that occurred during the exercise. The feasibility of the program was evaluated based on six criteria: attendance rate, completion rate of exercise components, completion rate of prescribed repetitions, feasibility questionnaire responses (patients & physiotherapists), absence of serious adverse effects, and successful measurement of selected functional outcomes according to the intended time and frequency.

Results: The study included 20 individuals; majority were females (65%) and an average age of 82 ± 6.1 years old. The participants exhibited poor physical performance, with 85% having low hand grip strength (HGS), 95% having reduced muscular strength (5STS), and below-average mobility performance (TUG: $42.3s \pm 23.6$). However, the participants showed good adherence to the P-EASE exercise program, with a mean attendance of 87% and 93% completing at least 70% of the exercise components. The average duration of each exercise session was 28.1 minutes, and all participants completed more than 80% of the repetitions for each exercise. Both the participants and physiotherapists gave favorable feedback on the program's feasibility, and no serious or significant adverse effects were noted from the program.

Conclusion: P-EASE exercise program is a feasible, well-tolerated, and safe intervention for older persons with existing co-morbidities who require hospitalization and rehabilitation. The effectiveness of P-EASE within the challenges of an acute hospital needs to be evaluated in future clinical trials.

ID: PT_012

Theme: Immobility

Title : Ischemic Stroke Subtypes : Sociodemographic, Risk Factors and Severity Among Geriatric Patients in Seberang Jaya Hospital

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Background: Stroke is the third most common cause of death in Malaysia. A comprehensive analysis of risk factors and severity of ischemic stroke and its subtypes is crucial for optimum utilization of resources.

Aim: The objectives are to study the sociodemographic, the severity and the relationship of risk factors with ischemic stroke subtypes among the geriatric patients in Seberang Jaya Hospital.

Methodology: The data of 252 ischemic stroke patients who were 60 years old and above was extracted from the Seberang Jaya Hospital Stroke Registry from January to December 2022 to analyze on its subtypes based on the Oxfordshire Community Stroke Project (OCSP) classification, socio-demographic factors and risk factors. The severity of stroke was based on the National Institutes of Health Stroke Scale (NIHSS).

Results: Lacunar infarct (LACI) was the commonest ischemic stroke subtype (n=147, 58.3%) followed by partial anterior circulation infarcts (PACI) (n=51, 20.2%), total anterior circulation infarcts (TACI) (n=36, 14.3%) and posterior circulation infarcts (POCI) (n=18, 7.2%). Males (n=146, 57.9%) were more than females (n=106, 42.1%). Malay ethnicity comprised the highest percentage (n=142, 56.3%), followed by Chinese (n=72, 28.6%) and Indian (n=38, 15.1%). The mean age in years for ischemic stroke, TACI, PACI, LACI and POCI group was 70.50±7.10, 74.00±8.92, 70.22±6.48, 70.11±6.78 and 67.50±5.06 respectively. The mean age is significantly different between TACI (74.00±8.92) and POCI (67.50±5.06) with a mean difference of 6.50 (95% CI 1.44 to 11.56) , p=0.007.

Conclusion: Ischemic heart disease and male gender are found to be a significant risk factor for TACI and PACI respectively, compared to LACI. Male gender is not modifiable. Hence, managing ischemic heart disease has to be prioritized with our limited resources to reduce severe stroke.

ID: PT_013

Theme: Immobility

Title : What Makes Low-Income Older Adults Use Mobility App? Evidence from Malaysia

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Background: Mobility applications have the potential to promote healthy aging among low-income older adults. However, the use of mobility applications is often low due to inappropriate app design and lack of mobility technology awareness.

Aim: First, we develop a novel mobility app, TakeMe to consolidate transportation options and connect volunteers with community-dwelling older adults to support their different mobility needs. Second, we examine the role of mobility technology awareness and users' perception in shaping the low-income older adult's intention to use mobility app.

Methodology: The study comprised two parts: (1) iterative system development; (2) usability testing. The study was guided by participatory design principles, where stakeholders were involved throughout the design process of the mobility app. TakeMe app was developed and evaluated by 282 low-income older adults through a survey concerning their mobility technology awareness, perceived usefulness, perceived ease of use, and intention to use the mobility app.

Results: Our survey results revealed that mobility technology awareness was a causal antecedent to perceived usefulness and perceived ease of use. Low-income older adults' intention to use mobility app was positively influenced by perceived usefulness and perceived ease of use.

Conclusion: TakeMe app contributes as a novel mobility app. Studies on technology adoption largely focus on general older adults, and often neglect the low-income older adult segment. This study entails a new model for the evaluation of mobility app by uncovering the influence of mobility technology awareness on Technology Acceptance Model studies. These insights have important implications for designing and promoting low-income older adults' use of mobility app.

ID: PT_014

Theme: Immobility

Title: Prevalence And Risk Factors Of Falls In Parkinson's Disease Patients Among Older Adults In Parkinson's Clinic UMMC

Background: Parkinson's disease (PD) is a prevalent condition that impacts the nervous system and leads to physical and non-physical symptoms. Unfortunately, PD can significantly reduce a person's quality of life due to its debilitating effects. Falls are one of the most common issues among older adults with PD, which can result in disability and illness. To better understand this issue, researchers conducted numerous studies to identify the risk factors and prevalence of falls among older adults with PD. This study specifically aimed to identify these factors among University Malaya Medical Centre (UMMC) patients.

Methodology: In this study, 138 participants diagnosed with Idiopathic Parkinson's disease and aged over 65 years old were included. We collected data on falls that occurred in the past year, as well as examined patients for disease severity, frailty score, Lowton Activities of Daily Living (ADL) score, Geriatrics depression scale (GDS), Mini-mental state Examination (MMSE) and postural hypotension. After conducting univariate analyses, we then analysed variables associated with the outcome measure using logistic regression in multivariable models.

Result: This study shows that 67% of PD patients were fallers. Disease duration and severity by Hoehn and Yahr scale (H&Y scale) and body mass index (BMI) shows significant p-value with falls. P- value for GDS (0.004) and postural hypotension (<0.001) with fall are also statically substantial. After multivariate logistic regression analysis, disease severity, GDS, and postural hypotension were the best independent variables associated with falls.

Conclusion: It is imperative that future studies prioritize interventions specifically designed to prevent falls in older adults with PD

ID: PT_015

Theme: Instability

Title : SARCOPENIA IN THE COMMUNITY: IS ROUTINE SCREENING AMONG COMMUNITY DWELLING OLDER ADULTS EFFECTIVE?

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Background : Sarcopenia is associated with falls and mortality and AWGS 2019 defined it as age-related loss of muscle mass, plus low muscle strength, or low physical performance. Although the estimated prevalence is between 4.1% and 11.5%, routine screening among community dwellers is debatable.

Aim : The aim of this study is to screen for sarcopenia among community dwelling older adults.

Methodology: A cross-sectional study was done during a health screening in Kuala Lumpur in October 2022. Sarcopenia screening was performed using parameters such as mid-calf circumference and subsequently, handgrip strength and physical performance tests (5-time chair stand test and 6-metre walking test). Skeletal Muscle Index (SMI) was calculated using BIA. Cut-off points were in accordance to AWGS 2019. Correlations between baseline characteristics (BMI, CFS, number of past medical history and MNA) and sarcopenia parameters or SMI were also examined.

Results : 68 people participated in this program with a mean age of 67.2 years. Majority were Malays (86.7%) and females (79.4%). The subjects were generally well, as half of them (54.4%) had nil or one past medical history and a majority (89.7%) had a Clinical Frailty Scale (CFS) of 1-3. 79.4% had a normal nutritional status on the Mini Nutritional Assessment (MNA) but 64.75% were obese with an average BMI of 32.8kg/m². Half the participants (51.4%) had a small mid-calf circumference. When testing for muscle strength using the hand grip, 57% had low strength. During the physical performance test, 41.6% had a slow chair stand test and 32.3% had a slow gait speed during the 6-metre walking test. Based on the strength test or physical performance test, 76.4% of them had possible sarcopenia. However only 1 participant had a low SMI, which confirmed the diagnosis of sarcopenia. There were no strong correlations between baseline characteristics and sarcopenia parameters or SMI using the Pearson Correlation in this study.

Conclusion : Despite many participants having low physical performance and low strength, most did not have low muscle mass during this screening. This may suggest an early sarcopenia in which early intervention is beneficial or other factors such as cognitive impairment contributing to this outcome.

ID : PT_016

Theme: Incontinence

Title: Acute Urinary Retention(AUR) in Severe COVID-19 Infection: A Cross-Sectional Study

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Background: Continence had often been overlooked especially among older patients who were critically ill. In addition, the nature of COVID-19 which requires isolation and personal protective equipment presents significant challenges in providing continence care.

Aim:This study aims to assess the prevalence of acute urinary retention, patients' characteristics, medical complications, and outcomes among patients with severe COVID-19.

Methodology: This is a cross sectional study of 281 patients with severe COVID-19 infection who were transferred out of ICU or general medical wards to the subacute geriatric ward Kuala Lumpur Hospital from 1st January 2021 to 31st December 2021 were included. Severe COVID-19 infection was defined as COVID-19 infection Clinical Category 4 or 5. Acute urinary retention was diagnosed clinically by history and physical examination.

Results: 281 patients were included with a mean age of 61.4 (SD 15.3) and 123 (50.6%) were females.). Among those with AUR, 76.3% of the patients were age 65 and above. In terms of comorbid, chronic kidney disease was associated with AUR. Urinary tract infection, hospital acquired pneumonia, anaemia, delirium, acute coronary syndrome, arrhythmia, hypernatraemia and hypercalcaemia were the medical complications associated with AUR. Pressure injury rate was higher among patients with AUR. There were more patients being chair/bed bound upon discharge and they were discharged with a significant lower Modified Barthel Index(MBI).

Conclusion: AUR is prevalent among patient with severe COVID-19 infection particularly the older age group. Due to its association with poor functional outcome, it should be identified and treated promptly.

ID : PT_017

Theme: Others

TITLE: THE CO-EXISTENCE OF FRAILITY AND MALNUTRITION AMONG COMMUNITY-DWELLING OLDER ADULTS IN MALAYSIA – A POPULATION-BASED STUDY

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Background: Frailty is one of the geriatric syndromes that is highly prevalent and has been recognized by the WHO as a major concern in public health. Malnutrition (undernutrition) is frequently co-existed with frailty and its co-occurrence can result in a range of negative health outcomes and significantly affect the quality of life of older adults.

Aim: This study aimed to investigate the prevalence and factors associated with the co-occurrence of physical frailty and malnutrition in community-dwelling older adults in rural Malaysia.

Methodology: This was a population-based study of 1947 older adults regarding the co-occurrence of physical frailty and malnutrition among community-dwelling older adults in rural Malaysia. Physical frailty was assessed based on the modified Fried's phenotype, and nutritional status was assessed based on the Mini Nutritional Assessment (MNA). Frailty and nutritional status was then combined and categorized into four subgroups: (1) robust with normal nutrition; (2) robust with at-risk/malnutrition; (3) prefrail/frail with normal nutrition; and (4) prefrail/frail with at-risk/malnutrition.

Results: The prevalence of co-existing frailty and malnutrition was 17.6% (95% CI 17.0 – 18.2%), 37.3% (95% CI 36.6 – 38.1%) had frailty with normal nutrition, 6.8% (95% CI 5.5 – 7.2%) had robust with malnutrition, and only 38.3% (95% CI 37.5 – 39.0%) had robust with normal nutrition. The co-existence of frailty and malnutrition was more frequent in females, advanced age, lower education and household income levels, low social support and impaired cognitive status. Participants with advanced age, lower education and household income levels, non-married, fair-to-poor self-rated health, presence of chronic diseases, polypharmacy, low social support, and cognitive impairment were independently associated with the co-existence of frailty and malnutrition.

Conclusion: The finding highlight the importance of early screening for both frailty and malnutrition as more than half (61.7%) of older adults living in rural community areas are either frail, malnourished or having both conditions simultaneously. Healthcare professionals should prioritize targeted interventions that involved dietary intervention and physical activity exercise to improve these conditions and ensure well-being of older adults.

ID : PT_018

Theme: Others

Title: Frailty Aware Surgical Care – Validation of Hospital Frailty Risk Score (HFRS) in Older Surgical Patients

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Background: Frailty has an important impact on the health outcomes of older patients. Hospital Frailty Risk Score (HFRS) is a validated tool that utilises International Classification of Diseases codes (ICD-10) to highlight frailty risk. There is currently no validation study of HFRS in surgical patients in Singapore.

Aims: We sought to compare HFRS to the Charlson Co-Morbidity index (CCI) and validate HFRS as a predictor of adverse outcomes such hospitalisation utilisation and mortality in surgical patients and determine whether HFRS is associated with severity and complexity of surgery in frail older patients

Methodology: A retrospective study of electronic health records (EHR) performed in patients aged 65 years and above discharged from surgical disciplines between 1st April 2022-31st July 2022. Patients were stratified into low (HFRS<5), intermediate (HFRS 5-15) and high (HFRS > 15) of frailty.

Results: A total of 1829 unique patients were included with a mean age was 76 years. There was higher prevalence of males in the although the proportion were similar in those at high risk of frailty. Hospital Length of Stay (LOS), was significantly longer in those at higher risk of frailty compared to those at lower risk (60.5% vs 15.6%, $p<0.001$). Mean CCI was higher in those at high risk compared to those at low risk of frailty (2.66 vs 1.09, $p<0.001$). There was a statistically significant association between HFRS and CCI ($p<0.001$). Comparing HFRS with CCI, we observed that HFRS is a better predictor of long LOS (AUC 0.757 vs 0.631), 90-day mortality (AUC 0.663 vs 0.611), and 270-day mortality (AUC 0.686 vs 0.684). When used in combination, HFRS and CCI was also found to be a better predictor of 90-day mortality (AUC 0.670), 270-day mortality (AUC 0.724), and 30-day readmission (AUC 0.679 vs 0.646 for HFRS).

Conclusion: First locally validated study in Singapore looking at the HFRS in older surgical patients in a tertiary hospital. Patients with higher scores on HFRS have poorer health outcomes, higher health care utilisation and is predictive of long LOS, although CCI is more predictive of LOS and mortality. Combined HFRS and CCI is a better predictor of mortality and readmission rates.

ID : PT_019

Theme: Immobility

Title : A case series of stroke thrombolysis with Alteplase 0.6mg/kg in Hospital Taiping

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Background: Stroke, if presented early, reperfusion therapy remains the single most important and beneficial treatment. The internationally recommended dosage for IV Alteplase is 0.9mg/kg, and there are very limited studies exploring the efficacy and safety of 0.6mg/kg dosage.

Aim: Study on the outcome of all stroke patient thrombolysed with IV Alteplase 0.6mg/kg in Hospital Taiping in terms of efficacy and safety.

Methodology: This is a retrospective, cross sectional study which include all the ischemic stroke patients who are given thrombolysis treatment in Hospital Taiping in year 2022. Outcome in the ward, 90-days mobility and mRS scale are collected retrospectively.

Result: There are total 13 patients undergone stroke thrombolysis with 0.6mg/kg in Hospital Taiping year 2022. The mean door to needle time is 3 hour 26 minutes. It shows a mean 3.2 improvement of NIH Stroke Scale post thrombolysis. MRS 3 months after discharge shows mean score of 2.8. Study shows 6 out of 13 (46%) able to walk without aid, while 2 (15%) still dependent on wheelchair for mobility. There is 1 person who was uncontactable. There are 4 patients passed away but none are due to intracranial hemorrhage. One patient developed evolving infarct with hemorrhagic transformation, which treated conservatively. There are 2 survivors who complicated with cerebral edema, mass effect and required decompressive craniectomy surgery.

Conclusion : This case series shows that the outcome of stroke patient thrombolysed with lowered dose of IV Alteplase 0.6mg/kg is comparable with other trials which use standard dose of Alteplase. Thus, lowered dose IV Alteplase can be considered for stroke thrombolysis.

ID: PT_020

Theme: Others

Title : Exploring the Future of Geriatric Care: An Interprofessional Collaborative Learning Pilot Project

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Background: The shift towards an aging population poses unprecedented challenges for the healthcare system.

Aim: To equip future healthcare professionals for geriatric care through an interdisciplinary collaborative learning session.

Methodology: This student-led workshop was organised by the respective dental, medical, pharmacy and nursing student societies at Universiti Malaya. It consisted of a series of lectures and team-based interactive sessions focused on addressing the healthcare needs of older persons. The workshop content was prepared based on student feedback on challenges they encountered managing older patients, particularly when it involved working with other healthcare professionals. The lectures covered four key themes: an introduction to geriatric medicine, the management of loose teeth in older patients, geriatric pharmacotherapy, and establishing rapport and trust with older people. All undergraduate students from the four disciplines were invited to participate. Pre- and post-workshop assessment of students' confidence across different domains in geriatric care (reducing medical errors, initiating treatment promptly, reducing inefficiencies, improving inter-professional relationship, increasing job satisfaction, improving patient's quality of life, improving care delivered, and working together with other students) on a 10-point Likert scale was done. Descriptive analysis and appropriate testing of mean difference between paired data based on its distribution was undertaken.

Results: 58 students attended the workshop. 49 students (dental 38.8%, pharmacy 36.7%, nursing 18.4%, medicine 6.1%) completed the pre- and post-event questionnaire. 83.7% were in their final undergraduate year. Most of the participants (63.3%) reported encountering geriatric patients daily. Confidence across the difference domains pre-workshop was 6.14 (range, 5.82 – 6.41), which increased to 8.21 (range, 7.96 – 8.37) post-workshop. The increase in the individual pre- and post-workshop domains were statistically significant. Feedback was overwhelmingly positive. Shared learning with other disciplines led to a broader perspective of geriatric care. Speakers were commended for their ability to communicate experiences. Participant claimed that the workshop provided in-depth insights into the effective handling of geriatric patients. All participants would recommend this workshop to colleagues in the future.

Conclusion: An interprofessional geriatric masterclass had a positive impact on undergraduates' confidence and may serve as a useful educational intervention in fostering holistic care for older people.

ID: PT_021

Theme: Intellectual Impairment

Title : Falls Among Older Adults Attending the Memory Clinic in A University Hospital

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Background: Injurious falls are common among older adults with dementia which result in significant morbidity and mortality. However, the risk factors associated with falls in older adults with dementia could differ from those who are cognitively intact. Understanding the risk factors of falls in this subset population especially in the local setting will help to guide appropriate falls intervention programmes.

Aim: To determine the prevalence and risk factors for falls among older adults attending the Memory Clinic in a tertiary hospital in Malaysia.

Methodology: A cross-sectional study was conducted among 665 patients who attended the Memory Clinic in University of Malaya Medical Centre, Kuala Lumpur from January to December 2022. Basic sociodemographic details and clinical characteristics, including a fall history over the past one year, were obtained using electronic medical records. Severity of cognitive impairment was assessed using the Mini-mental state examination. Functional ability was assessed using the Lawton Scale and Katz Index. The presence of neuropsychiatric symptoms was recorded from physician medical documentation.

Results: A total of 665 patients were recruited with a mean age of 79.5 years (SD 7.7) and 57% are women. 552 patients (83.0%) were diagnosed with dementia, 79 (11.9%) with mild cognitive impairment and 34 (5.1%) with diagnoses of a neurological or psychiatric nature. 22.3% (n=148) of patients reported a history of falls in the last one year. Univariate analysis revealed factors independently associated with an increased risk of falls were older age (81.7 ± 7.3 years vs. 78.8 ± 7.7 years, $p < 0.01$), fracture history (OR 4.03, 95% CI: 2.59-6.28, $p < 0.01$), hospitalisation within the year (OR 1.72, 95% CI: 1.13-2.63, $p = 0.01$), nursing home resident (OR 1.59, 95% CI: 0.98-2.59, $p = 0.04$), presence of neuropsychiatric symptoms (OR 1.42, 95% CI: 0.98-2.06, $p = 0.04$), lower MMSE score [16 (IQR 6-22) vs. 18 (IQR 10-23.3), $p = 0.04$], lower IADL score [2 (IQR 0-6) vs. 4 (IQR 1-9), $p < 0.01$], and lower BADL score [10 (IQR 6-12) vs. 11 (IQR 7-12), $p < 0.01$]. The most common neuropsychiatric symptoms among patients with falls were agitation (25.7%), followed by sleep disorder (20.9%) and depression (16.2%).

Conclusion: One in five older patients with cognitive impairment had at least one fall over a one-year period. Early identification of patients with a higher risk of falling is important for a comprehensive falls prevention strategy to improve patient outcomes.

ID : PT_022

Theme: Latrogenic

**Title: Heart Failure in Older Adults and Polypharmacy:
A case series of 14 patients**

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Background: Polypharmacy is generally described as taking at least 5 medications. It has become growing important for older adults especially in guideline-directed medical therapy (GDMT) to treat heart failure (HF) as polypharmacy is associated with a myriad of adverse outcomes.

Aim: To evaluate clinical outcome and polypharmacy of older adults with heart failure.

Methodology: This is retrospective observational case series on 14 patients with heart failure reduced ejection fraction (HfrEF) of aged ≥ 65 years old in HF clinic at Hospital Sri Aman. Clinical characteristic, clinical outcome and medications over a 3-month period of follow up were reviewed.

Results: This case series included 14 patients (3 female, 11 male). Median age was 73 years old. 9 of them had ischemic heart disease. Most common comorbidities were dyslipidemia (100%), followed by hypertension (85.7), chronic kidney disease (71.4%), Diabetes Mellitus (50%) and Atrial Fibrillation (42.9%). It shown improvement in functional classification of HF after 3 months HF clinic interventions, which were 61.5% had NYHA I, 38.4% had NYHA II and none had NYHA III. Mean Clinical Frailty Score improved from 4 ± 0.6 to 3 ± 1.2 . There was also improvement of Ejection Fraction from baseline mean $30.8\% \pm 8.7$ to $45.9\% \pm 10.6$ after 3rd months. Total medical prescriptions had increased after 3rd month, from a median number of 9(IQR 3.8) at baseline to 10(IQR 5.9). About 53% of them took at least 10 medications after the 3rd month of visit. The median number of HF medications were 4(baseline IQR 1.5 and after 3rd month visit IQR 1.7). At the 3rd month visit, the median number of cardiovascular non-HF medications increased from 2(IQR 2.5) to 3(IQR 3.4). The median number of non-cardiovascular medications increased from 1.5(IQR 5.5) to 2(IQR 5.3). 2 patients were readmitted to hospital and 1 died at the end of 3 months.

Conclusions: A new cut off of taking ≥ 10 medications as polypharmacy in older adults with HF is recommended. GDMT in HFrEF improves outcome. Inappropriate polypharmacy should be avoided, however avoiding optimal medical therapy also has its consequences, and it may likely be worse than the issues with polypharmacy itself.

ID : PT_023

Theme: Latrogenic

Title: Prescribing Pattern and Appropriateness of Proton Pump Inhibitor Usage in Older Adults in Medical Ward

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Theme: Iatrogenic Complications

Background: Proton Pump Inhibitors (PPI) is commonly prescribed medications, however the indication and appropriateness can be questioned at times. Their efficacy and perceived safety have led to widespread prescription. This is not without effect, in terms of adverse events and resource utilization.

Aim: We aimed to look at the appropriateness of PPI usage on the prescribing pattern of PPI in one of medical wards in our center based on the American Gastroenterology Guideline (AGS) for PPI. Secondary outcomes were to look at the pattern of prescribing upon discharge and documented plan for review as part of discharge plan.

Methodology: We conducted an observational cross sectional study from March 2023 to April 2023. Patients aged 65 and above in medical ward 7C including those who were on PPI pre admission (PPIPA) and newly prescribed or PPI naive (PPIN) were recruited. Data were observed via Electronic Pharmacy Prescription, hard copies medical records and Electronic Discharge Summaries.

Results: 50 patients were included in the study with mean age of 75.4. 29 patients (58%) were PPIN and 21 patients (42%) were PPIPA. Based on AGS PPI Indication Guideline, PPIN group showed 9 patients (31.03%) with clear indications for either short term or long term PPI usage while 20 patients (68.97%) had no clear documentation on indications of PPI. In the PPIPA group, 6 patients (28.57%) had clear indications for PPI while 15 patients (71.43%) had no clear indications for long term PPI. In PPIN group, although not all patients, 26 (89.66%) patients were discharged with PPI, only 1 patient (3.85%) had documented plan for review PPI. Furthermore, in the PPIPA group, majority of patients, 19 (90.48%) were discharged on PPI and only 5 patients (26.32%) had documented plan for review PPI after discharge. 3 patients (6%) in this study had previous history of gastrointestinal bleed and 6 patients (12%) had upper endoscopy tests for investigations of various reasons.

Conclusion: Inappropriate PPI therapy is still a problem in our hospital. Awareness of evidence-based guidelines and targeted medicine reconciliation strategies are essential for safe use in older adults. Improvement in our documentation will help provide quality and safe care.

ID: PT_024

Theme: Intellectual Impairment

Title: Characteristics of older people admitted to a university hospital diagnosed with delirium

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Background: Delirium is defined as an acute and fluctuating disturbance in attention and cognition. It is associated with poor healthcare outcomes. Despite it affecting up to a quarter of older adults admitted to hospital, the description of this cohort remains limited.

Aim: This project aims to describe the factors associated with delirium and its management in hospital.

Methodology: This project included older adults (≥65 years) admitted to general medical, geriatric, and orthopaedic wards between 8.5.2023- 18.5.2023 with a diagnosis of delirium (or documented acute confusional state). Data on the characteristics and inpatient management were collected from electronic medical records. Data analysis was performed using R studio software.

Results: A total of 72 inpatients (41/72 patients, 57%, female; median (IQR) age, 80.4 (72.2,86.3) years) were included. They were admitted into general medical ward, 22 (30.5%), geriatric medicine ward, 45 (62.5%) and the orthopaedic ward, 5 (7%).

Delirium was diagnosed using a clinical tool in 62 patients (86.1%), with the rest down to clinical judgement. Physiological disturbance (69/72, 95.8%) and infection (60/72, 83.3%) were the most common presenting complaint. As part of their admission, 37/72 (51.4%) had a urinary catheter inserted and 13/72 (18.1%) had a nasogastric tube inserted. Many reported recognised risk factors for delirium. Frailty (64/72, 88.9%), history of dementia or previous delirium (42/72, 58.3%), polypharmacy (51/72, 70.8%), disability (60/72, 83.3%), at risk of malnutrition (37/72, 51.4%) were commonly reported. Six (8.3%) were physically restrained (four in general medical ward, and one in geriatric medicine ward and orthopaedic ward respectively). Thirteen patients (18.1%) were prescribed pharmacological agents to manage their delirium.

In the management plan, adequate analgesia was given to 28 patients (38.9%), and 48 (66.7%) had their medications reviewed and minimised.

Conclusion: This cross-sectional snapshot over 11 days identified 72 patients with delirium. Most have risk factors known to be strongly associated with delirium. Its prevalence indicated the need for holistic, consistent, and evidence-based management strategies for this group of patients. Hospital-wide guidance would support such a strategy.

ID: PT_025

Theme: Immobility

Title: NAFLD with pathological fracture in a frail elderly

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Background: Prevalence of nonalcoholic fatty liver disease in Indonesia is higher than in China and India. It is estimated that 30.6% of Indonesians live with NAFLD. A number that is even higher than estimated world's prevalence. Several studies have demonstrated the relationship of osteoporotic fracture and NAFLD. The mechanisms are complex and poorly understood, and might involve vitamin D receptor deficiency, low IGF1, and hyperbilirubinemia.

Aim: We are presenting a case of a 78 yo man with multiple pathological fractures and NAFLD to increase our knowledge of pathological fracture in NAFLD case.

Methodology: a case report

Results: Patient presented to RSCM geriatric clinic with chief complaint upper GI bleeding. This happened recurring for 3 years and had several endoscopic ligation procedures due to NAFLD. Patient fell off the bike and fractured his left femur in 2020 but refused surgery. His mobility was helped with a walker. In 2022, patient fell in the bathroom and couldn't walk. He was bed bound and complained of intense pain. Patient also has a history of diabetes.

Conclusion: Treatment goal in this case is to prepare for surgery, however the surgery was pushed back due to recurrent variceal esophagus bleeding. Current management includes medication for portal hypertension, diabetes, pain management, prehabilitation, and nutrition support.

ID: PT_026

Theme: Instability

Title : Fall incidence in KPJ Damansara Specialist Hospital with initiation of falls intervention

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Background: To date, there is very minimal data documented on patient falls and characteristic in Malaysia. However, 30-51% of fall in hospital result in some form injury, ranging from minor bruises to severe wound and fractures. They are associated with a longer length stay in hospital, incurring more costs. Fall awareness and regular intervention has been stressed upon in our hospital since 2020.

Aim: To capture data on the incidence of falls in KPJ Damansara Specialist Hospital since 2020 post initiation of fall awareness.

Methodology: This is a retrospective, observational study of all fall's incident reporting from year 2020-2022. A falls awareness program has been initiated in 2020 which includes regular and scheduled bed sides teaching, flash cards, redesigned fall signages and flipcharts for in patient education.

Result: The total number of in-patient days for 2020 is 18491days. Fall rate was 0.65% (n= 12 patient fall). This number reduced to 10 in 2021, after the implementation of falls awareness. However, the data showed increasing of numbers of fall, in 2022 with total number of patient days 35197 days, 0.34% (n= 12 patients).

Conclusion: The increment in the number of falls reported after 2 years possibly explains the effectiveness of falls prevention and education program as more Allied Hospital staff are aware of the importance of reporting.

ID: PT_027

Theme: Instability

Title: Older persons with Parkinson's Disease(PD) – why do they fall?

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Background: Falls are a significant cause of disability, lost in independence and reduced quality of life in older persons with PD. Studies have shown that about half of PD patients will fall each year, with a large proportion with recurrent falls.

Aim: To determine the characteristics of PD and to investigate the predictive risk factors for fallers.

Methodology: A retrospective cross-sectional study of patients ≥ 60 years old with PD in the Geriatric Clinic between 1st May 2022 till 30th April 2023.

Results: 43 patients with PD were assessed (46.5% female and 53.5% male). The mean age of onset was 69.7 ± 7.5 . Most of the subjects were of advanced Hoehn and Yahr (H&Y) stages: stage 3 (27.9%) and stage 4 (39.5%) at presentation to the clinic. The mean UPDRS Motor score was 18.8 ± 9.3 . Nonmotor symptoms were relatively common; 51.2% orthostatic hypotension, 44.2% cognitive impairment, 41.9% sleep disorders, 39.5% urinary incontinence, 25.6% depression and 9.3% reported to have pain.

More than a third were fully mobile without aids (37.2%), whilst about 41.9% were mobile with help (41.9%). About half of the subjects were moderately frail with Clinical Frailty Score (CFS) of 6. Majority of them have moderate number of comorbidities such as hypertension (51.2%) and stroke (39.5%) with Charlson Comorbidity Index 3-4 of 51.2%.

44.2% has recently fallen in the past 1 year. In our study, H&Y stage ($p=0.026$) was significantly associated with fall. However, no statistically significant difference was found when comparing subjects who has fallen by age ($p=0.056$), gender ($p=0.081$), age of onset ($p=0.095$) and comorbidities such as hypertension ($p=0.864$), diabetes ($p=0.545$), stroke ($p=0.759$) and coronary artery disease ($p=0.226$). In addition, there were no association between disease duration ($p=0.7$), UPDRS motor scores ($p=0.288$), CFS ($p=0.078$) and functional mobility ($p=0.718$). Non motor symptoms such orthostatic hypotension ($p=0.432$), cognitive impairment ($p=0.382$) and urinary incontinence ($p=0.118$) were also not associated with falls.

Conclusions: PD patients in Geriatric clinics usually present with more advanced disease and nonmotor symptoms with multiple comorbidities. They are at higher risk of falls and therefore a multidisciplinary management is warranted with early assessment and management of bone health.

ID: PT_028

Theme: Instability

Title : FALL RISK SCREENING OF ELDERLY PATIENTS VISITING INTERNAL MEDICINE CLINIC AT HOSPITAL X

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Background: Despite potential serious injury due to falls in elderly patients, Hospital X in East Java, Indonesia, does not have falls screening for outpatient setting.

Aim: To develop a fall prevention program for outpatient elderly in hospital.

Method : This descriptive observational study included 113 elderly patients visiting internal medicine clinic of Hospital X in April 2023.

Result: Based on Timed Up and Go test and 5 Times Chair Stands, the majority of respondents (56.6% and 80.5%, respectively) were at high risk of falling. However, only 13.3% of those reported their falls event. Visual impairments (93.3%), changes in urinary patterns (73.3%), consumption five or more medications (61%), having 2 or more chronic diseases (73.3%), were the most common falls risk factors in respondents with falls history.

Conclusion: Since percentage of respondents at high falls risk was quite large, healthcare practitioners in Hospital X should evaluate falls risk factors in all elderly patients in the clinic, especially for very old female patients with polypharmacy dan multipathology.

ID: PT_029

Theme: Instability

Title: HOSPITAL SERIAN HIP FRACTURE AUDIT 2021-2022

Authors : Lee Yee Ting*¹, Jordan Ching Bing Hoo¹

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Background: Malaysia has become an ageing population in 2022 with 7.3% of its population aged ≥65. Hip fractures as the most valid epidemiologic marker for fragility fracture due to osteoporosis will increase.

Aim: Knowledge regarding the incidence of hip fractures and fragility care especially in district hospitals without inpatient orthopaedic services and their outcomes will be pertinent to evaluate the impact of osteoporosis, identify high-risk populations thus prioritise and improve bone health in rural areas.

Methodology: Retrospective review of hospital admissions for hip fractures among those aged ≥60 from year 2021 to 2022 was done.

Results: There were 21 hospital admissions for hip fractures, majority being female Bidayuh with mean age of 79.4 (range 61-97). 1/3 of them had multiple comorbidities, with hypertension being the most common. Fall was quoted to be the mechanism of fracture, predominantly inside the house (76.2%) with neck of femur fracture being more prevalent (61.9%). Twelve patients were freely mobile while 18 of them were ADL-independent prior to the fall. Eight patients had a history of falls prior to the fracture. Only 5 patients proceeded with surgery with the remaining half refusing operation due to old age. The average length of stay in the hospital was 10 days, mostly kept for skin traction. Among complications reported during hospitalization were orthostatic pneumonia (19%), catheter-related urinary tract infections (14.3%) and pressure sore (4.8%) respectively. All patients were alive when discharged home (66.7%) with 7 being transferred to tertiary hospital for surgical interventions. Out of the 21 patients, 9 died within the first-year post fracture, yielding a mortality rate of 42.9%. 1/3 of patients who remain alive require walking aid for their mobility with only 3 being completely independent of aids. None of the patients were on osteoporotic treatment prior to fall. Surgical intervention was found to be significantly associated with better survival rate ($p=0.027$).

Conclusion: Elderly with hip fractures need more than just their hip fractures fixed. More need to be done in terms of managing concomitant medical issues, minimising hospital-acquired complications and reducing risk of future fractures, hence orthogeriatric care should be implemented in all hospitals.

ID: PT_030

Theme: Instability

Title: INJURIOUS FALLS - WHAT ARE THE RISK FACTORS?

Authors: HW Tay*¹, YB Ho¹, EGM Chong¹

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Background/ Aim: Falls are a major cause of injuries among older adults, necessitating the identification of risk factors to prevent future falls.

Methods: This retrospective study examined the association of potential risk factors, focusing on comorbidities and medications, with post-fall injuries requiring hospitalisation. The study was conducted at the Geriatric Falls Clinic in Hospital Kuala Lumpur (HKL). Data on demographics, comorbidities, medications, and hospitalization after were collected.

Results: The study included 239 patients, with a mean age of 79.6. Females constituted 61.3%, males 39.7%, and 74.1% were recurrent fallers. Among them, 28% experienced injuries requiring hospitalization.

Significant associations were found between osteoporosis ($p=0.000$) and incontinence ($p=0.002$) with injurious falls requiring hospitalization (OR 3.37 and 2.43, respectively). Common illnesses associated with aging such as osteoarthritis ($p=0.106$), diabetes ($p=0.268$), hypertension ($p=0.835$) and visual impairment ($p=0.384$) did not lead to injurious falls. Cardiovascular diseases such as atrial fibrillation ($p=0.383$), ischemic heart disease ($p=0.765$) and orthostatic hypotension ($p=0.324$) also did not have a significant relation to hospitalizations post injurious fall. There was also no association between neurological diseases affecting mobility such as Parkinson's disease ($p=0.997$), stroke ($p=0.368$) and dementia ($p=0.05$) with injurious falls.

In view to medication, thiazide use ($p=0.033$) was related to significant injurious falls requiring hospitalization, while other antihypertensives (ACE-Inhibitors/ Angiotensin receptor blockers, beta blocker, calcium channel blockers, loop diuretics and alpha blocker) did not show such an association. Sedatives ($p=0.949$), antipsychotics ($p=0.054$) and antidepressants ($p=0.606$) were also not associated with significant injurious falls.

In this study, multiple comorbidities (≥ 3) ($p=0.620$) and polypharmacy (≥ 5) ($p=0.544$) were also not associated with hospitalizations post-injurious falls.

Conclusion: Osteoporosis increases risk of fragility fractures, leading to more hospitalizations post falls. Incontinence in the older person which is frequently not addressed adequately, can directly contribute to significant injuries warranting hospitalisation. Thiazide is known for causing hyponatremia and hypokalaemia, other than its antihypertensive effects may lead to a more severe fall leading to injuries. However, this study did not establish an association between polypharmacy or multiple comorbidities and post-fall injuries requiring admission.

ID: PT_031

Theme: Immobility

Title: PHYSICAL ACTIVITY LEVELS AMONG OLDER PEOPLE ADMITTED TO HOSPITAL

Authors: Wan Safiyah Nurnajah Binti Wan Ahmad Tajuddin¹, Julia Anak Patrick Engkasan², Terence Ong Ing Wei¹

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Background: Older people admitted to hospital tend to have lower levels of physical activities, increasing their risk of loss of function and death.

Aim: This study aimed to assess physical activity levels among older people admitted to hospital and observed functional change.

Methodology: Twelve patients admitted to a hospital geriatric ward and consented to wearing the ActiLife v6.11.5 physical activity monitors were included in this study. The devices were attached to participants for three consecutive days during hospitalisation for continuous monitoring. Follow up was done at one month post discharge to assess Mobility Barthel Index (MBI) and Elderly Mobility Scores (EMS).

Results: Participants were on average 78.4 (SD±22) years, 57.1% of them were female, 92.9% were frail, and 64.3% of them had sarcopenia. The participants spent an average of 15.9% (3 hours 49 minutes) per day (SD±13.69) sitting down and standing up, with step count mean of 373.64 (SD±389.68) in hospital. Upon follow up, 4 participants had worsening need for walking aid (1 from no aid to walking frame indoors, 1 from walking frame indoors to wheelchair indoors, and 2 from walking stick to wheelchair indoors). Participants had reduced MBI (baseline mean: 78.36 (SD±22); follow up mean: 72.21 (SD±23.07), p=0.291) and EMS scores (baseline mean:8.86 (SD±3.8); follow up mean: 8.14 (SD±3.78), p=0.325). No significant correlation was found between time spent sitting up and standing with MBI (p=0.304) and EMS (p=0.199)

Conclusion: In this study, participants were found to spend less than 4 hours sitting or standing up in hospital. They were found to have declined functionality and mobility on follow up.

ID: PT_032

Theme: Intellectual Impairment

Title : Audit on Blood Investigations of Thyroid Function Test, Vitamin B12 and Folate in Geriatric Clinic

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Background: Vitamin B12 deficiency, folate deficiency and hypothyroidism represent reversible aetiologies for dementia. Vitamin B12 and folate deficiencies increase the risk of Alzheimer's dementia (AD) and vascular dementia (VaD) as their deficiency can increase the homocysteine level due to slowed methylation reaction. Homocysteine has a neurotoxic effect that could lead to neurologic disturbances. On the other hand, Hoelvorsf, E; 2002 and Van Osch ,LA; 2004 observed 3-fold increased risk of dementia and AD in persons with reduced TSH levels at baseline.

Aim: Majority attending Geriatric clinic HCTM UKM are consultations for investigations of dementia. This audit is performed in view of justifying the need to continue performing these as routine blood investigations.

Methodology: We conducted a retrospective review of electronic blood investigations on all new patients who presented to Geriatric clinic from May 2019 till December 2020 particularly to assess the levels of vitamin B12, folate, and thyroid stimulating hormone (TSH) in serum .

Results: 62 new geriatric patients were identified in this review with all mentioned blood tests in record. Mean age was 77.2 years. 41 females and 21 males. 6 patients (9.7%) had reduced TSH level, 2 patients (3.2%) had reduced Vitamin B12 level and 3 patients (4.8%) had reduced Folate level. All of the 6 patients with reduced TSH had normal T4 level. 2 patients (3.2%) had elevated TSH level and these 2 patients were also found to have reduced T4 level which made them serological hyperthyroidism.

Conclusion: These routine blood investigations are still appropriate as part of routine investigation for all geriatric patients who are at risk of intellectual impairment. The yield of anticipated results were more than 2% and these modifiable risk factors for dementia are worth investigating and treating.

ID: PT_033

Theme: Latrogenic

Title : RISK FACTORS ASSOCIATED WITH READMITTED GERIATRICS PATIENTS IN MEDICAL WARDS HOSPITAL CANSOLOR TUANKU MUHRIZ (HCTM)

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Background: Hospital readmissions pose negative consequences to the patients' overall health as well as a burden to the medical service. This study aims to investigate the relationship between geriatric patients readmission to medical wards in a tertiary centre and its corresponding risk factors.

Methodology: This research was done from June to December 2022 in Hospital Canselor Tuanku Muhriz, for all geriatrics patients aged 65 and above, who were readmitted within 90 days of discharge. Incorporating evidence from medical records and interviews with patients and their caregiver, this study collected information based on current literature review which predicted that comorbidities, polypharmacy, history of fall and functional status are risk factors for geriatrics readmission. Data were analysed with Chi-Square and Multiple Logistic Regression.

Results: 247 patients were recruited. These patients' mean age are 75 years old with less than 5% had prior critical care admission. Patients with more than three comorbidities are associated with higher Charlson comorbidity index and polypharmacy ($p=0.001$). While those with more than five numbers of medications, are associated with low household monthly income ($p=0.038$). Those who has low serum albumin and haemoglobin are associated with low functional status with $p=0.001$ and $p=0.002$ respectively. Having low serum albumin also shows strong association with prolonged hospital stay, $p=0.001$. Further analysis shows that more than five medications has increased risk for having more than three comorbidities with OR 2.8. Patients with lower socioeconomic status (monthly income less than RM 4000) have 1.8 times risk of having polypharmacy. While those with hypoalbuminemia (serum albumin <30 g/L) are more than two times likely of having prolonged hospitalization.

Conclusions: We identified that polymorbidity, polypharmacy, poor functional status and nutritional status are the risk factors of hospital readmission. This study demonstrates the importance of capturing this information during geriatrics patients admission, so that appropriate intervention can be done.

ID: PT_034

Theme: Others

Title: Mechanical Thrombectomy For Acute Ischaemic Stroke In Older Patient: A Northern Region Government Hospital Experience

Authors: Tat Chee Calvin Chang¹, Soo Pin Lim¹, When Yee Teh¹, Naimah Binti Mohd Saleh², Ping Kiat Chan³, Mohd Syafiek Abdul Haq Bin Saifuddin³, Chiann Ni Thiam¹

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Background: We report a case of a 69 year old functional independent Malay lady with underlying hypertension and dyslipidaemia who presented with sudden onset of right hemiparesis and global aphasia.

Case presentation: The patient was found to have reduced consciousness with right-sided facial and limbs weakness at home. She presented to Emergency Department(ED) 3 hours after symptoms onset and stroke code was activated 30 minutes after arrival. Neurological examination revealed power of right upper and lower limbs to be 0/5 and 2/5 respectively. Her National Institutes of Health Stroke Scale (NIHSS) score was 16. ECG showed atrial fibrillation.

Computerised tomography (CT) brain and cerebral angiography revealed acute left MCA territorial infarction (ASPECT score 6) secondary to long segment intra-arterial thrombus from ipsilateral terminal ICA extending to the MCA arterial distribution with good collateral. CT perfusion study showed mainly penumbra region with a small infarcted core and good collateral vessels observed on multiphase images. In view of presence of large vessel occlusion, mechanical thrombectomy was opted.

Mechanical thrombectomy was performed under general anaesthesia. Aspiration thrombectomy of acute left terminal ICA occlusion was performed, resulting in successful and complete recanalization within 5.5 to 6 hours of onset of stroke.

Patient was extubated on day 3 post mechanical thrombectomy and required oxygen therapy for 8 days due to iatrogenic fluid overload. Follow-up CT scans at 24-hour and Day 7 post-thrombectomy revealed subacute infarction at left insular cortex and MCA territory without signs of post-procedural intracranial haemorrhage. Echocardiogram did not show left ventricular thrombus.

At Day 10 post-stroke, she demonstrated significant neurological recovery with power over right upper and lower limbs improved to 5/5 and her Modified Rankin Scale upon discharge was 3. Oral anticoagulant was initiated at day 14 of stroke.

Discussion: This case report demonstrated that elderly with acute ischemic stroke may benefit from mechanical thrombectomy despite high risk of post-procedural complications. Although our patient has developed severe neurological deficit with iatrogenic fluid overload, she managed to recover and achieve functional independence due to prompt delivery of mechanical thrombectomy and optimal medical care in ward.

ID: PT_035

Theme: Latrogenic

Title: Anticholinergic Burden Among Persons Living with Dementia

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Background: Anticholinergic burden is the cumulative usage of multiple drugs with anticholinergic effects. Anticholinergic burden has been associated with delirium, symptomatic deterioration, poor physical performance and increased mortality among persons living with dementia (PLWDs). Despite this, the use of anticholinergic medicines is common to treat various health conditions in PLWDs.

Aim: This study aims to examine the frequency and impact of anticholinergic burden among PLWDs attending a memory clinic in a university hospital.

Methodology: This is a cross sectional study which recruited 300 patients attending the memory clinic of University Malaya Medical Centre between January to December 2022. Data was collected from electronic medical records which include sociodemographic details, comorbidities, dementia subtypes, mini mental state examination score, Barthel index, Lawton functional status score and the presence of neuropsychiatric symptoms. Anticholinergic burden was assessed using the Anticholinergic Cognitive Burden (ACB) scale. Health outcomes such as falls and hospitalisation in the last preceding one year was also recorded.

Result: Of the 300 patients recruited, 85 (28.3%) had Alzheimer's disease, 68 (28.7%) with vascular dementia, 97 (32.2%) with mixed dementia and 42 (14%) with mild cognitive impairment. The mean number of prescribed medications were 6.28 (SD 3.07) and mean ACB score was 0.92 (SD 1.38). A total of 60 (20%) PLWDs had high anticholinergic burden (ACB \geq 3). PLWDs who had high ACB score were associated with presence of neuropsychiatric symptoms such as delusion (OR= 4.58, 95% CI: 1.81-11.59, $p < 0.01$), hallucination (OR = 5.29, 95% CI 2.33 – 12.00, $p < 0.01$), agitation (OR= 4.91, 95% CI 2.68-9.00, $p < 0.01$) and sleep disturbance (OR = 3.04, 95% CI 1.67 -5.56 $p < 0.01$). Lower MMSE score, poorer functional status, and nursing home residents were also significantly associated with high ACB score.

Conclusion: These findings highlight the importance of considering anticholinergic burden in medication prescriptions for PLWDs. Healthcare professionals should exercise caution, aiming to minimize this burden and reduce the risk of neuropsychiatric symptoms and cognitive decline in this vulnerable population.

ID: PT_036

Theme: Immobility

Title: The Power of Numbers: Illuminating the Connections between Immobility and Older Adults through Bibliometric Analysis

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Background: Aging and the associated issues of immobility pose significant challenges to public health, making it crucial to identify research areas and future directions in the field of falls among older adults.

Aim: This study aims to examine the main areas and current interactions related to falls in older adults and proposing potential research avenues.

Methodology: To conduct this investigation, a bibliometric analysis was performed on a sample of 267 studies obtained from the Scopus database, spanning from 1909 to 2023, focusing on the research theme of "immobility and older adults."

Results: The findings reveal that the United States has been active in producing research on this topic, with a significant number of publications originating from the University of Minnesota Twin Cities. Three prolific authors were identified, namely Faure JM from France, Addison O from the United States, and Ahmad NA from Malaysia. The most cited paper, authored by King AC and colleagues in 2000, titled "*Personal and environmental factors associated with physical inactivity among different racial-ethnic groups of U.S. middle-aged and older-aged women*," demonstrated the highest citation count of 658. Among journals, PloS ONE emerged as the most active in publishing research on immobility and older adults. The co-occurrence analysis, conducted using VOSviewer software, explored the thematic clusters within the research domain. Three major clusters emerged from the analysis. Although research activity on immobility and older adults is occurring worldwide, limited collaboration exists across country lines, particularly between authors from developed and developing countries. Risk factors associated with immobility and physical activity levels received substantial attention in the aging research field. However, insufficient consideration has been given to the diversity of aging and their specific cultural and socioeconomic needs.

Conclusion: This study highlights the urgent need to address immobility in older adults and proposes two potential research directions. The first direction emphasizes prevention strategies, aiming to reduce falls and subsequent immobility. The second direction suggests focusing on sub-populations of older adults, particularly those with mental health issues. By addressing these research gaps, effective interventions and policies can be developed to promote healthy aging and mitigate the adverse effects of immobility.

ID: PT_037

Theme: Instability

Title: Unveiling Hidden Threats: Analysing Fall Risk Factors among Institutionalized Older Adults Selangor, Malaysia.

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Background/Aim: Falls substantially impact the well-being of older adults, particularly those in institutional care settings. Rumah Seri Kenangan Cheras (RSKC) Selangor provides institutional care for older adults needing minimal assistance in basic ADL to entirely dependent. In this study, we aimed to explore and identify factors associated with falls in this vulnerable population.

Methodology: This was a cross-sectional study utilising the data collected from fall risk assessments and medical records during a 'Knowledge Transfer Project' in RSKC. Fall risk was assessed using the Downton Fall Risk Index (DFRI). DFRI is a 5-item question analysing the history of falls, medications, mental status, sensory impairment, and gait. A score of 3 or more was taken to indicate a high risk of falls. Descriptive statistics to analyse the prevalence and logistic regression were used to identify associated fall risk factors. Data were analysed using SPSS V29.

Result: Among the 184 residents, the majority were male (n=111, 60.3%), with an average age of 72.7 ± 7.1 years. Their health profile includes hypertension (50.5%), diabetes mellitus (28.8%), psychiatric illness (10.3%) and cardiovascular disease (9.2%). Approximately a quarter of residents (23.4%) have polypharmacy, defined as the concurrent use of five or more medications. Regarding fall history and risk, 24.5% of the residents had a history of falls. Utilising the DFIR, 39.7% of residents were identified as high-risk. Previous history of falls showed the most critical factor in being classified as high risk (OR=9.711, 95% CI: 4.145-22.751, $p < 0.001$). For every one-year increase in age, the odds increased by 5.7% (OR=1.057, 95% CI: 1.003-1.114, $p < 0.05$). Diagnosed with hypertension (OR=2.267, 95% CI: 1.012-5.076, $p < 0.05$) and polypharmacy (OR=2.826, 95% CI: 1.144-6.980, $p < 0.05$) significantly increased the odds of being in the high-risk category.

Conclusion: This study showed that a history of falls, age, hypertension, and polypharmacy increased the risk of falls in this institution. These findings emphasise the importance of implementing regular comprehensive multifactorial assessment strategies and formulating individually-tailored interventions to ensure the safety and well-being of this vulnerable population in institutional care settings.

ID: PT_038

Theme: Others

Title: Unveiling the Hidden Burden: Non-Motor Symptoms in Older Person with Parkinson's disease

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Background: Parkinson's disease (PD) is a neurodegenerative disorder associated with motor and non-motor symptoms (NMS). NMS is often under-recognised in clinical practice, which leads to deterioration of quality of life with the progression of the disease.

Aim: This study aimed to assess the prevalence of NMS in older person.

Methodology: This is a retrospective cross-sectional study of patients with PD. Data including demographics and NMS was collected from 1st May 2022 till 31st March 2023 in the Geriatrics clinic, Hospital Kuala Lumpur. The presence of NMS was assessed through self-report measures and clinical evaluation.

Results: 42 patients diagnosed with PD (47.6% female, 52.4% male) with a mean age of 75.5 ± 6.8 years. The predominant race of the study population consisted of Chinese (59.5%), followed by the Malays (21.4%) and Indian (19%) population. A good proportion of the patients (59.5%) was diagnosed with PD within 5 years of symptoms onset. However, those who were diagnosed rather late were concerned: 23.8% diagnosed within 10 years, 7.1% diagnosed within 15 years and less than 5% diagnosed within 20 years. Majority (33.3%) diagnosed PD at Hoehn and Yahr stage-5.

100% of the cohort has NMS. Physical related NMS took predominance: Constipation in 61.9%, urinary incontinence in 40.5% and orthostatic hypotension was prevalent among 52.4% of the population. Non-specific pain was also reported by 9.5% of the study population.

Mental health symptoms were also rather prominent with depression being reported by 23.8%, whilst 40.5% experienced sleep related problems. Almost half (45.2%) has cognitive impairment as per assessment via history and Mini Mental State Examination.

Statistical analysis revealed that a significant association ($p < 0.05$) is illustrated with regards to the presence of incontinence and cognitive impairment in relation to disease duration.

Conclusion: This study highlighted the significant burden of NMS in the older person. The NMS could cause a significant effect to the QoL of the patients and burden to caregivers, especially with delayed diagnosis. Therefore, early and timely referral is imperative to confirm the diagnosis and establish a shared multidisciplinary management plan for the older persons with Parkinson's disease.

ID: PT_039

Theme: Others

Title: Unmet need in intimate relationships was associated with increased risk of hospitalization: One year follow up study among community dwelling older adults.

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Background: A rise in the needs for healthcare services was brought on by an aging population. When the care requirement is not adequately met, it results in medical problems including hospitalization. The purpose of this research was to determine how the unmet needs will impact on the risk of hospitalization among the older population in our country as there was currently no paper study on the relationship between them in Malaysia.

Methodology: A one year study was conducted. Participants coming from the communities in Kuala Lumpur, Kuala Selangor and Putrajaya were first interviewed face-to-face and a phone call interview was carried out later on the same group of participants after a year. The Camberwell Assessment of Need for the Elderly (CANE) was used in this study to determine the met and unmet needs of the elderly at the baseline interview. While the hospitalization questionnaire consisted of 4 questions covering the participants' history of hospitalizations in the past 12 months were asked during the phone call. Data on socio demographics were also collected.

Results: Among the 150 participants, 26.7% of them reported the presence of unmet needs and 4.7% presented with the hospitalization history within 1 year after enrolling into this study. Compared to participants without unmet needs, participants with unmet needs in certain domains had a greater risk of hospital admission. Interestingly, participants who reported issues of intimate relationship had a slightly higher risk of hospital admission.

Conclusion: This study highlights that issues in intimate relationships were associated with increased risk of hospitalization after one year in community dwelling older people. Future study should therefore explore the underlying mechanism in the associations found to prevent hospitalization.

ID: PT_040

Theme: Others

Title: The Characteristics and Palliative Care Needs of Patients with Dementia receiving Hospice Care

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Background: There is no data on the palliative care needs of patients with dementia referred for hospice care. Our objective is to describe the clinical characteristics and symptoms of patients with dementia enrolled into hospice care at home.

Methodology: Retrospective electronic data was collected from January 2022 to December 2022. The data included socio-demographic data, phase of illness from palliative care outcomes collaborative (PCOC), Eastern Co-operative Oncology Group (ECOG) performance status, Edmonton Symptom Assessment System (ESAS), palliative care needs on first assessment.

Results: A total of 71 patients with dementia were referred for hospice care. 4 patients died before first assessment. 14 patient referrals were declined (12 due to out of coverage, 1 died upon referral and 1 because of multiple failed phone call attempts). Out of the 53 patients who received hospice care; 39 were female, 14 were male. The median age was 87 years of age. On first PCOC assessment: unstable phase (19 patients); deteriorating phase (13 patients); dying phase (2 patients); stable phase (19 patients). On the first ECOG assessment, 46 patients were ECOG 4; 5 patients were ECOG 3; 1 patient was ECOG 2. Only 2 patients completed ESAS scores.

Symptoms on first assessment: pain (9 patients), constipation (7 patients), anorexia (6 patients), behavioural symptoms (3 patients), dyspnoea (2 patients), dysphagia (2 patients), hiccups (2 patients), dry mouth (1 patient), cough (1 patient), dizziness (1 patient) lower GI bleed (1 patient). Carers' needs included guidance on nursing care (26 patients); diabetes management (1 patient); medication review (1 patient); occupational therapist referral for fall prevention, transferring technique, home modification (3 patients); guidance on end-of-life care (5 patients); addressing hydration and nutritional issues (2 patients). Only 2 patients could express their preferences of treatment and place of care.

Conclusions: Patients with dementia who receive hospice care have poor functional status, symptom burden, with some requiring urgent change in management on first assessment.

ID: PT_041

Theme: Immobility

Title: POOR PHYSICAL PERFORMANCE IS LINKED TO HIGHER RESILIENCY IN COMMUNITY DWELLING OLDER ADULTS: A CROSS- SECTIONAL STUDY

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Background: Issues surrounding aging population and quality of life are expected to rise according to the fast developing of aging population. Older adults with low resiliency to cope with the stressors in life tend to lead to poor quality of life. While lack of physical activity is considered as one of the factors that causes it to happen. To date, only a handful of published studies has suggested that physical performance and physical activity can influence the resiliency in older adults, data from low middle income countries such as Malaysia is however yet to be explored.

Aim: To investigate the associations of physical activity, physical performance and level of resiliency in community dwelling older adults living in Selangor, Wilayah Persekutuan Kuala Lumpur and Putrajaya.

Methodology: This was a cross sectional study on 417 Malaysian older adults aged ≥ 60 years old. International Physical Activity Questionnaire (IPAQ) was used to assess the physical activity level, resiliency level was assessed by Connor-Davidson Resilience Scale (CD-RISC) while the physical performance was assessed by the Five Times Sit to Stand (5xSTS) test. Demographic data (age, gender, races and marital status) and medical history (hypertension, hyperlipidemia, diabetes mellitus and arthritis) were also collected.

Result: Among 417 of total participants, 372 participants were analyzed in this study. There was no association between the physical activity and resiliency among older adults. However, there was association between the physical performance and resiliency with odds ratio (95%CI) 2.644 (1.497 - 4.670) This association was independent from the demographic differences and presence of comorbidities.

Conclusion: Community dwelling older adults with poor physical performance had higher resiliency as compared to those without. This suggests that Malaysian older adults develop resiliency in overcoming the challenge and set back in their life.

ID: PT_042

Theme: Others

Title: IMPLEMENTATION OF INTERNATIONAL DYSPHAGIA DIET STANDARDIZATION INITIATIVE (IDDSI): ARE WE READY?

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The older populations are at increased risk for the development of dysphagia as aging and illnesses may affect the swallowing mechanism. Diet texture and liquid modification have become one of the most common forms of intervention for dysphagia and are widely considered important for promoting safe and efficient swallowing. The International Dysphagia Diet Standardization Initiative (IDDSI) has created global standardized definitions for texture-modified diets (TMDs) and thickened liquids to improve the safety and care of individuals with swallowing difficulties. However, to date, the IDDSI framework is still not widely used in Malaysia. This study aims to assess healthcare providers' knowledge and attitudes toward the implementation of IDDSI and identify possible strategies for successful implementation. Data collection was conducted among healthcare providers in Hospital Sultan Ismail, Johor Bahru via an online survey using an adopted questionnaire from a previous study. A total of 131 respondents were engaged in this survey. All data were assessed for normality using the Shapiro-Wilk test due to the small sample size. The IDDSI knowledge levels were assessed by summing the correct results with a total score of 8. The median score for IDDSI knowledge is 1.0 with an Interquartile Range of 0 – 2.0. More than 60% of the respondents (n=77) reported that they have not learned about IDDSI and only 42.7% (n=53) of the respondents think that IDDSI is easy to put into practice. However, 71% of the respondents agree that IDDSI can improve patients' food safety and quality of care. From this survey, most of the respondents concluded that the significant barriers to the implementation of IDDSI were found to be difficulty in reading, understanding, and remembering the IDDSI definitions and descriptions. However, 83.6% of the respondents are interested in future education for the implementation of IDDSI. Additionally, the majority of the respondents choose seminars and workshops as the main channels of education. Our study shows the need to facilitate IDDSI implementation, particularly regarding IDDSI understanding and knowledge through tailored intervention. Further study is required to evaluate the effectiveness of intervention in our facility.

ID: PT_043

Theme: Latrogenic

Title : Detecting ADRs in Hospitalized Elderly: Geriatric Trigger Tool Study at HKL"

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Background: ADRs in the elderly was a significant healthcare issue, as they are cause of morbidity and mortality. It is challenging to recognize ADRs especially in the elderly because the symptoms presented are often non-specific. The aimed of this study was to develop trigger tool for ADR detection and to analyze ADR risk assessment in the hospitalized elderly patients.

Methodology: Comprehensive literature review through PubMed and Cochrane database to gather the information of of ADR detection trigger tool. Content construction and content validation was done using two stage of Modified Delphi Method involving ten members of expert panel. The developed trigger tool was applied to detect ADR among hospitalized elderly patients from March to August 2017. Descriptive statistics and Logistic regression was used for ADR risk assessment.

Results: A total of 23 statement of ADR trigger tool was developed from various sources at the fist round. After the content validation only 21 statements of ADR trigger tool were obtained consensus from all the panel members. A total of 283 participants were involved during application phase, with 105 patients had ADR incidence, which contributed to 37.8% prevalence among hospitalized elderly patients. The mean age of the patients was 72.1 years old (SD ± 7.8) The highest numbers of ADRs detected were associated with the endocrine and metabolism disorder (n=46 cases) and the common medication cause ADR was cardiovascular (n=55) group. Four independent variable identified contribute to the risk of ADRs which is number of medication > 5 OR 2.37 (CI 1.04-5.37), usedof PIM OR 3.69 (1.88-7.24) , Length of stay > 9 days OR 2.87 (1.67-4.95), CCI score >4 OR 4.39 (CI2.47-7.81) and patient weight 0.98 (0.96-0.99).

Conclusion: Application of developed trigger tool was able to recognize 105 of incidence of ADR, with most common drug is from cardiovascular group. The most ADR causes were affecting endocrine and metabolism. The final model in predicting risk of ADR in the hospitalized elderly patients, in this study were: prescribed with > 5 medications, length of stay > 9, the use of PIM (based on beers criteria) , CCI score more than 4, and low body weight.

ID: PT_044

Theme: Intellectual Impairment

Title: Managing Behavioural and Psychological Symptoms of Dementia (BPSD) in a cognitive clinic

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Background: Behavioural and psychological symptoms are common and often cause significant burdens to the carers of patients with dementia. They are commonly confounded by other health issues complicating their management. This study aims to identify multiple aspects affecting the management of dementia patients with BPSD.

Methodology: This is a retrospective cross-sectional study of all patients who visited the Memory Clinic Hospital Kuala Lumpur, from 1st August 2020 to 31st May 2023. Inclusion criteria are all patients diagnosed with BPSD. Demographic data and medical conditions were collected from the medical records and analysed using SPSS.

Results: A total of 176 patients were included with a median (IQR) age of 79(73-85) with female predominance (61.9%). A total of 139 (78.1%) patients stayed with their families and the majority (48.6%) of them were having mixed dementia. The median (IQR) MMSE score is 13 (8-18). The most common types of BPSD are aggression (54%), followed by hallucination (39.2%) and aberrant motor behaviour (32.4%). 75.6% of BPSD were triggered by identifiable causes. The most common trigger is unmet needs (32.6%) and communication problems (29.7%) among patients and carers. Unfortunately, 36.9% of BPSD patient experiences fall while 52.8% of the patient has an issue with polypharmacy. In BPSD patients, polypharmacy is significantly associated with falls ($P=0.037$). Non-pharmacological treatment was documented in 92% of the BPSD cases while 79% of the cases were given pharmacological treatment. The most common pharmacological treatment used is Donepezil (44.6%) followed by Memantine (42.4%) while reassurance, reorientation, distraction and redirection were the latter.

Conclusion: Multiple factors should be considered in the management of BPSD patients including types of BPSD, possible triggers, falls, and polypharmacy prior determination of pharmacological and non-pharmacological used treatments. Many patients with BPSD have polypharmacy and this is strongly associated with falls. Both polypharmacy and fall should be addressed to reduce the burden of care.

ID: PT_045

Theme: Instability

Title: Unraveling Recurrent Falls in the Community

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Background: Falls are the leading cause of trauma-related mortality among older persons, with recurrent falls associated with more functional impairment, admission to long-term care facilities, and mortality.

Aim: This study aimed to assess the rate and risk factors of recurrent falls in patients attending the Geriatric Falls Clinic.

Methodology: Retrospective analysis of patients seen at Falls Clinic in a tertiary centre between 2015-2022. Data was obtained from clinical notes. Demographic, comorbidities and medications were analysed.

Results: Study population comprised of 229 patients with history of fall. Among them, 77.3% (177) experienced recurrent falls, while 22.7% (52) has only fallen once. Both patients with recurrent falls and single fall had mean age of 79.7 (SD 7.7) years, with female consist of two third of them.

The most common mechanisms of fall among recurrent fallers are lost of balance 51.4%, tripped 32.2% and dizziness 26.0%. Recurrent fallers are more likely to fall due to lost of balance compare to single fallers (51.4% vs 28.8%; p-value 0.004).

Single fallers had more injurious falls requiring admission in comparison to recurrent fallers (50% vs 22%, p-value 0.000). However, risk factors for falls among recurrent fallers were not significantly different compared to single fallers, such as poor vision (82.4% versus 78.3%, p-value 0.520), polypharmacy (81.3% versus 86.5%, p-value 0.378), and multicomorbidities (≥ 3) (82.5% versus 82.7%, p-value 0.973).

Osteoarthritis and dementia were found to be associated with a higher risk of recurrent falls (p-value 0.044 and 0.030 respectively). After multiple logistic regression analysis, persons with dementia exhibited a concerning risk of recurrent falls (odds ratio of 5.254, p-value 0.029, CI 1.187-23.267).

Conclusion: Our study showed that recurrent fallers has less injurious falls possibly due to more effective protective responses to avoid injury during a fall. High prevalence of poor vision, multiple comorbidities and polypharmacy among patient were found in recurrent falls. In addition, dementia patients have five-fold increased risk of recurrent falls. These results emphasise how crucial it is to include the management of these risk factors in falls prevention plans and specialised targeted falls interventions should be offered for persons with dementia.

ID: PT_046

Theme: Others

Title: Unraveling Odynophagia in Older Person: A Case Report

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Introduction: Odynophagia in older individuals have a profound impact on their well-being, leading to reduced quality of life and increased morbidity if left unaddressed. It can stem from various factors such as infections, malignancies, and ulcers. Here, we present a case of odynophagia caused by osteophytes in the anterior vertebral bodies and the diagnostic evaluations.

Case Description: A 74-year-old man who previously had a lacunar stroke, presented with a three-year history of painful swallowing affecting both liquids and solids. Initially, he experienced pain while swallowing solid foods, which worsened over several months, to liquids. During this period, he also lost 5 kg of weight and developed depression.

Initial investigation includes oesophagoduodenoscopy, which revealed mild antral gastritis and a negative *Helicobacter pylori* test. A barium swallow showed minimal posterior indentation of the cervical oesophagus between the C4 and C7 levels. Further evaluation with a Fiberoptic Endoscopic Evaluation of Swallowing (FEES) test demonstrated inflammation in the pharynx, edema of the epiglottis, and restricted pharyngeal contraction, resulting in pharyngeal residue. However, no penetration or aspiration was noted during FEES. He eventually underwent a CT scan of the neck which revealed anterior osteophytes at the level of C5 to C7, causing indentation on the pharynx. No narrowing or soft tissue lesions were observed. Based on these findings, we concluded that the odynophagia was due to a combination of cervical osteophyte and chronic gastritis.

Discussion: While cervical osteophytes are often asymptomatic, they can occasionally lead to disruptive symptom like odynophagia when they grow anteriorly. Therefore, it is important to investigate extensively to find its cause. Investigations involve a CT scan and additional procedures to confirm swallowing difficulties. Treatment approaches are tailored to the individual's symptoms and may include dietary modifications, prescription of anti-reflux and anti-inflammatory medications to alleviate symptoms or surgical intervention. Providing emotional support and empathy, along with appropriate treatment, can assist patients in effectively managing depression.

Conclusion: Comprehensive evaluations and multidisciplinary interventions are crucial to identify and address the underlying cause of odynophagia and its impact on the well-being of older individuals.

ID: PT_047

Theme: Others

Title : Association between Psychological Status and Cognitive Frailty Transition in the Malaysian Elders Longitudinal Research study

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Background: CF is associated with adverse health outcomes in older adults, prompting the need to explore its reversibility amidst rapid population aging. While current risk factors for CF predominantly revolve around physiological factors, psychological risk factors remain poorly explored. This study observed CF transition over a seven-year period and its association with depression, anxiety, and stress.

Methodology: Participants aged above 55 years from the Malaysian Elders Longitudinal Research were recruited at baseline in 2013 via stratified random sampling from the electoral rolls of three parliamentary constituencies within the Klang Valley. Follow-up data were obtained in 2020 through use of virtual survey due to the COVID-19 pandemic. Frailty was determined using the Cardiovascular Health Study index at baseline and the Fatigue, Resistance, Ambulation, Illness and Loss of Weight index at follow-up. Mild cognitive impairment was determined with the Montreal Cognitive Assessment at baseline and the blind-version at follow-up. CF was defined by the coexistence of both frailty and MCI. Depression, anxiety and stress were assessed through the 21-item Depression, Anxiety and Stress scale.

Results: Data from participants aged (mean \pm SD) = 76.03 \pm 13.3 years, 56.9% female were included. CF was present among 6(1.1%) participants at baseline and 16(2.8%) at follow-up. Overall improvement and worsening of cognitive frailty transition over 7-year period were observed among 93(16.79%) and 461(83.21%) participants respectively. Significant differences in education level, asthma and cancer were present between the improved and worsened group. Depression, anxiety and stress were also significantly associated to cognitive frailty transition over a 7-year period. Improvement in cognitive frailty were observed among 92(100%), 88(97%) and 91(100%) of those with normal to mild symptoms of depression, anxiety and stress respectively, in comparison to those with moderate to severe symptoms.

Conclusion: Improvement and worsening of CF was observed over 7-years. Psychological status may pose as potential target for intervention to prevent worsening of CF.

ID: PT_049

Theme: Immobility

Title: Prevalence of Functional Decline Among Hospitalised Elderly: A Cross-Sectional Study

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Background: Functional decline among elderly during hospitalisation is a critical yet under-recognised issue that can possibly lead to significantly reduced quality of life, prolonged recovery of patients and increased healthcare burden. This poster presentation aims to present the findings of cross-sectional study conducted in district hospital of Sabah to determine the prevalence of functional decline among hospitalised elderly patients.

Methodology: This study utilised cross-sectional design to assess the prevalence of functional decline among community-dwelling elderly patients who were admitted to Hospital Tuaran, Sabah from April to May 2023. Participants aged 65 years and above who were admitted to male and female medical wards were enrolled. Pre-hospitalisation functional status were assessed using Katz Index of Independence in Activities of Daily Living (Katz ADL), and subsequent changes in functional status prior to discharge were measured using the same scale. The exclusion criteria were: deceased patients, elderly who were totally dependent at baseline (0 score in the Katz Index), and those with admission of less than 24 hours.

Results: This study included a total of 70 community-dwelling hospitalised elderly patients, which comprised of total 30 male and 40 female patients, with mean age of 76.1 years old. 43 out of 70 (61.4%) of the elderly patients recruited are totally independent at baseline, with Katz Index of 6 points.

Functional decline is defined as the development of new or worsen dependency level in Activities of Daily Living (ADL) as measured by Katz index. Among all elderly patients, 41 out of 70 (58.6%-about two-third) of them experienced functional decline, with at least 1 point drop in Katz score. While only 29 out of 70 (41.4%) elderly patients remained totally independent upon discharge.

Out of 41 patients who had functional decline, 29 of them (70.7%) had a drop of ≥ 2 Katz Index score prior to discharge. 15 of them (36.5%) had significant drop in Katz index of 3-4 points, all of which correlated with prolonged hospital stay of ≥ 5 days. This showed that among elderly, particularly those who were physically frail at baseline, intervening illnesses and hospitalisation significantly increased the likelihood of developing new or worsening disability.

Conclusion: This study highlights the prevalence of functional decline among vulnerable hospitalised elderly patients. It underscores the importance of proactively identify patients at risk of functional decline. Prompt implementation of preventive and targeted interventions is crucial to minimise further functional deterioration during hospitalisation, thus facilitating the recovery of patient and reducing the overall healthcare burden.

ID: PT_050

Theme: Others

Title: A Report on Geriatric Cases Seen At Optometry Services in Kedah

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Introduction : Malaysia is becoming one of aged nation in 2030. Geriatric patients are at risk of having visual impairment, and majority of the causes are reversible blindness such as cataracts and refractive errors. Thus, early treatment may improve their capability in Activities of Daily Living as well as to prevent fall.

Aim : To report the number of geriatric cases seen in Optometry services in Kedah. All cases were extracted through the year 2022, who attended Refraction, Biometry and Low Vision services.

Results : A total number of 3667 cases of geriatric patients seen in optometry services throughout the year 2022 with an even number in gender ratio. The services observed were follow up cases in Biometry with 2721 cases (74.2%), followed by 786 new cases in Refraction, 155 new cases in Biometry and 5 new cases in Low Vision service, with 21.43%, 4.22% and 0.14% respectively. In comparison to total patient seen in each service, geriatric with Low Vision dominated the service with 55.56%, followed by 52.62% in follow up Biometry, 46.95% in new case of refraction and 13.8% in new cases for Biometry.

Conclusion : Geriatric patients may occupied most of Low Vision appointment slots as well as cataract management in Optometry and Ophthalmology services. Early visual function management and rehabilitation may alleviate their quality of life and independency.

ID: PT_051

Theme: Instability

Title: TUG Test's Validity for Fall Risk in Institutionalised Older Adults: A DFIR Comparison

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Introduction: Institutional care for older adults with high fall risk lack customised risk assessments with unclear validity and agreement. The Downton Fall Risk Index (DFRI) and Timed-Up-and-Go (TUG) tests are practical choices where resources are limited. The DFRI is a 5-item questionnaire with three or more scores indicating a high risk. The TUG test is a 3-meter walk, with completion times of 13.5 seconds, suggesting increased risk. This study aimed to evaluate the DFRI and TUG test for assessing fall risk, including their agreement, criterion validity, and an optimal TUG cut-off in this population.

Methodology: This cross-sectional study utilised the data collected from fall risk assessments during a 'Knowledge Transfer Project' in Rumah Seri Kenangan Cheras (RSKC), an institutional home caring for older adults needing minimal assistance to entirely dependent. Kappa statistics were used to measure the agreement between the two tools. The Receiver Operating Characteristics (ROC) curve analysis was used to evaluate the specificity and sensitivity of the tools. An Area Under the Curve (AUC) value exceeding 70% was taken to indicate validity. The optimal cut-off point was derived from AUC coordinates, aiming for the highest sensitivity and specificity combination. Data were analysed using SPSS V23.

Results: This study evaluated 68 participants' results of DFRI and TUG tests via convenience sampling. Half of the participants are male (n=35, 51.5%), with a mean age of 72.7 ± 7.38 years. TUG test demonstrated moderate to good predictive performance (AUC 0.71, 95% CI 0.58-0.84, $p < 0.05$) for identifying fall risk in institutional care when using the DFIR as a reference. A fair agreement was observed between DFIR and TUG in assessing fall risk (Kappa = 0.31, $p < 0.05$). This analysis demonstrated that a cut-off value of 12.69 seconds provided a high sensitivity (0.88) with a moderate 1-specificity (0.49). Higher sensitivity is chosen to avoid misidentification of the increased risks.

Conclusion: The findings support the role of these tools in guiding personalised fall prevention interventions and monitoring the effectiveness of these interventions over time in institutional care settings.

ID: PT_052

Theme: N/A

Title: PREVALENCE AND FACTORS ASSOCIATED WITH SHOULDER COMPLEX FUNCTION (SCF) AMONG THE ELDERLY

Authors: NINA LIM SIANG YIN

Background: Shoulder problems have been a challenge among the aging population that affects the quality of life (QOL) and active daily living (ADL) activities. Although reports have surfaced on factors affecting shoulder problems, such studies in relation to neck pain (NP) are limited especially among the elderly in the urban population. This study investigated the prevalence and factors associated with shoulder complex function (SCF) among the elderly in a private physiotherapy clinic in Klang Valley, Malaysia.

Methodology: A total of 75 elderly participants aged ≥ 60 years old from 4 private physiotherapy clinics in Klang Valley were targeted for this survey. Participants were divided into 3 groups; Group A: youngest-old (60 to 74 years old), Group B: middle-old (75 to 84 years old), and Group C: oldest-old (≥ 85 years old). Questionnaires were administered to determine sociodemographic, medical comorbidities, lifestyles, NP, and SCF. NP and SCF of the elderly were evaluated using NP scale and SCF with the QuickDASH questionnaire. Results: Data collected shows that 50.7% of the participants were from the youngest-old group. Overall, respondents are non-smokers (61.3%), have hypertension (56%), diabetes (58.7%), and osteoarthritis (61.3%). Respondents with an active lifestyle (53.3%) are more than a sedentary lifestyle (46.7%). It was discovered that the total population of residential elderly at Synapse Physiotherapy across Klang Valley was 178 persons. Results show a high prevalence of SCF disability among the residential elderly. 69 out of 75 respondents indicated a significant impairment of the SCF. 92% of the respondents have SCF disability with 2 participants having severe SCF impairments with a QuickDASH score of 90.91 out of 100. There was a positive correlation between NP to SCF. There are significant associations between sex, smoking, hypertension, osteoarthritis, and NP scale with SCF scores. A multiple linear regression model found that sex and NP scale significantly contributes to SCF scores.

Conclusion: Clinical practitioners should consider including rehabilitation treatment of NP in the SCF framework or protocol for addressing the elderly with SCF disabilities. As for future research recommendations to better understand the implications of these results, future studies can be done with a larger sample size.

ID: PT_053

Theme: Intellectual Impairment

Title: Physical and Cognitive Frailty: Impact on Mortality Among Older Surgical Patients in a Tertiary Centre

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Introduction: Surgery is often necessary for older patients, however, many of these patients are burdened with multiple

comorbidities and poorer physical and cognitive reserves. Cognitive frailty is a clinical syndrome defined by both cognitive impairment and physical frailty, and has been associated with adverse surgical outcomes in older adults, including disability and all-cause mortality.

Aim: To determine the association of physical and cognitive frailty with mortality among older surgical inpatients undergoing elective and semi-urgent surgery in a tertiary centre.

Methodology: Patients aged ≥ 65 years who were admitted for elective and semi-urgent surgery in the University of Malaya Medical Centre were recruited from August 2019 to January 2020. Demographic and clinical characteristics were collected through electronic medical records. Physical frailty was defined using the Fried Frailty Index (FFI) which includes shrinking, weakness, exhaustion, slowness and low level of physical activity. Cognitive status was assessed using the Montreal Cognitive Assessment (MoCA). Patients were stratified into 6 groups based on the cumulation of their frailty and cognitive status: 1) robust, 2) normal cognition with physical frailty, 3) mild cognitive impairment (MCI) without physical frailty, 4) cognitive frailty (MCI with physical frailty), 5) dementia without physical frailty, and 6) dementia with physical frailty. Mortality data was collected from the national death registry.

Results: 406 patients were included in the analysis, with a mean age of 75.1 (SD 5.8) years. The mean FFI score was 1.1 (SD 1.2). 165 (40.6%) patients were non-frail, 185 (45.6%) were pre-frail and 56 (13.8%) were frail. The mean MOCA was 20.4 (SD 5.8). Mortality risk for individuals who had normal cognition with physical frailty was HR 1.62 (95% CI 0.62-4.25, $p=0.33$), MCI without physical frailty was HR 0.52 (95% CI 0.17-2.47, $p=0.64$), cognitive frailty was HR 3.17 (95% CI 1.36-7.38, $p=0.01$), dementia without physical frailty was HR 2.37 (95% CI 0.61-9.18, $p=0.21$) and dementia with physical frailty was HR 3.91 (95% CI 1.62-9.43, $p<0.01$). Other significant predictors of mortality included men (HR 2.68, 95% CI 1.49-4.81, $p<0.01$), malignancy (HR 4.95, 95% CI 2.59-9.48, $p<0.01$), hip fracture (HR 4.82, 95% CI 2.21-10.52, $p<0.01$) and admission for vascular surgery (HR 3.48, 95% CI 1.15-10.59, $p=0.03$)

Conclusion: The cumulation of physical and cognitive frailty was associated with mortality among older patients who underwent surgery. This highlights the importance of frailty and cognitive assessment for all older patients undergoing surgery to guide prehabilitation efforts improve surgical outcomes.

ID: PT_055

Theme: Latrogenic

Title :Anticholinergic Burden on Health Outcome Among Elderly in Geriatric Ward, Hospital Sungai Buloh

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Background: Common usage of medications with anticholinergic properties among the elderly predisposes them to higher risk of anticholinergic burden. With raised anticholinergic burden, the elderly is susceptible to anticholinergic adverse effects such as cognitive and functional impairment, in view of their older age and frequent polypharmacy.

Aim: To determine the prevalence of anticholinergic burden among elderly patients in geriatric ward, Hospital Sungai Buloh and its association with adverse health outcomes.

Methodology: Patients aged 60 years and above, admitted to the geriatric ward, Hospital Sungai Buloh, from 1st January 2019 till 31st December 2019 were included in the study. Patient's medical records were reviewed retrospectively and drugs used prior to admission were analyzed. The Anticholinergic Cognitive Burden scale was used to estimate anticholinergic burden. Cognitive performance and functional status were assessed at admission using Mini-mental State Examination (MMSE) and Modified Barthel Index, respectively.

Results: Among the study population (n = 179), 39.7% were burdened with at least one medication with anticholinergic properties. Cardiovascular drugs with anticholinergic properties were most commonly prescribed (30.2%). In comparison to non-users, patients with anticholinergic burden had higher incidence of dementia (p = 0.005), stroke (p = 0.002) and fall (p = 0.01). Only patients exposed to drugs with definite anticholinergics were associated with dementia (p = 0.031) and stroke (p = 0.004). Moreover, a negative correlation was observed between increasing anticholinergic burden and decline in cognitive performance. There was no association between anticholinergic burden and functional status.

Conclusion: There is a high prevalence of elderly patients admitted in geriatric ward with anticholinergic burden. The use of medications with anticholinergic burden was associated with increased incidence of dementia, stroke, fall and decline in cognitive performance. Particular attention should be paid when prescribing medications to minimize anticholinergic burden especially older adults, thereby reducing adverse health outcomes.

ID: PT_056

Theme: Others

Title: Medication Adherence in Elderly with Chronic Disease Assessed by Community Pharmacists Through Home Medication Review

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Background: Given that the elderly is vulnerable to having numerous comorbidities, they possess a greater chance of polypharmacy and, as a result, may present with an increased likelihood of drug nonadherence than the younger group. Medication adherence describes whether or not individuals take their medication as prescribed by their doctors as well as continue to take the prescribed meds. Compliance with therapy is a major factor in treatment effectiveness.

Aim: To evaluate adherence to medications in elderly patients with chronic diseases by a community pharmacist's home medication review.

Methodology: A cross-sectional study was carried out in Hulu Besut among elderly patients who were above 60 years old and have chronic disease with medication more than 3. The Malaysia Medication Adherence Assessment Tool (MyMAAT) was used to evaluate the patient's medication adherence. To summarize the adherence data, descriptive statistical methods were used. A correlation analysis was performed utilizing suitable statistical methods to investigate the association between age and medication amount with medication adherence.

Results: The data collected involving 75 patients (40% male, 60% female) ranging in age from 60 to 93 years old were analyzed. The overall MyMAAT instruments have a mean (SD) score of 38.65 (11.75). In summary, 15% of patients were adherent to their medical regimen (MyMAAT \geq score 54). Age and the number of medications used showed no significant association with medication adherence.

Conclusion: The majority of elderly patients were nonadherent to their prescribed medication, which the community pharmacist was able to identify during a home medication review. The findings highlighted the importance of proactive interventions that can be given to increase compliance with medications and guarantee patients achieve benefit from therapy.

ID: PT_057

Theme: Others

Title: Home Medication Review: Analysis of Medication Profile and Drug Related Problems in Elderly

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Background and Objectives: Home Medication Review (HMR) is a structured and systematic assessment on individual's medication regimen in home settings. This cross-sectional study aimed to comprehensively analyse medication profiles and identify drug related problems (DRPs) through home medication program by community pharmacists.

Methodology: The cross-sectional study was done included 76 older participants from selected regions (Hulu Besut and Kampung Raja, Terengganu) from December 2022 until January 2023 by trained community pharmacists. Pharmacy Services Protocol Home Medication Review (HMR) 2nd and 3rd Edition 2023 was used to evaluate the outcome.

Result: The data collected involved 76 older population with females constituting 56.6% (n=43) and males 43.4% (n=33) of the population. The ages of the participants ranged from 60 to 93 years, with a mean age of 71.7 years. The medication statistics showed that the population took an average of 4.8 medications (SD 2.6) with a maximum of 10 medications. The prevalence of DRPs was high: 85.53% (n=65) of patients had at least one identified DRP. The PCNE classification system was used to categorize DRPs, with the most frequent categories being P2.1 (50.4%, n=60), P1.2 (31.1%, n=37), P1.3 (14.3 %, n=17) and P3.2 (4.2%, n=5). The most frequently identified DRP was P2.1, which is related to treatment safety and potential adverse events, occurring in 71.1% (n=54) of patients. In addition, polypharmacy was detected in 55.3% (n=42) of patients taking five or more drugs. This highlights the potential complexities and challenges associated with medication management in the geriatric population.

Conclusion: In conclusion, the majority of elderly patients were exposed to high prevalence of DRPs. HMR by trained community pharmacists were able to provide comprehensive review with the target to reduce drug related problems. The results underscore the need for a collaborative effort between health professionals, policy makers and patients to integrate HMR into community-based health care as an integral part of medication management.

ID: PT_059

Theme: Instability

Title: Rapid screening for physical activities of daily living among older adults in a resource limited clinical setting

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Background - Due to the lack of organized geriatric care, the physical activities of daily living (pADL) of older adults are not routinely assessed in clinical and primary care settings in Sri Lanka. This study evaluated the validity of previously published 3-item shorter versions of Barthel index (BI) in older adults.

Methodology - Consecutive 200 older adults, aged ≥ 65 years, attending medical clinics for more than 6 months due to chronic diseases were assessed using the Sinhala version of BI and Katz index (KI), validated previously. The performance of three shorter versions of BI (SV1, SV2 and SV3) was examined considering the total BI and KI as the reference standards. SV1 (items 2, 7 and 10); bathing, toilet use and stairs, SV2 (items 4, 5 and 8); dressing, bowel and transfer, SV3; (items 1, 9 and 10) feeding, mobility and stairs.

Results - Correlations between total score of BI and SV1, SV2 and SV3 were 0.67, 0.86 and 0.86 and the corresponding values for KI were 0.41, 0.90 and 0.67 ($p < 0.001$ for all). According to total BI, 107 were full independent while 93 were dependent varying from mild to severe. When compared with total BI, sensitivity, specificity, PPV and NPV of SV1 were 0.28, 0.87, 0.65 and 0.58 (Kappa 0.15, $p = 0.009$). The corresponding values of SV2 were 0.72, 0.66, 0.65 and 0.73 (Kappa 0.38, $p < 0.001$) and SV3 were 1.00, 0.58, 0.67 and 1.00 (Kappa 0.56, $p = 0.009$). When KI was considered the reference standard, sensitivity, specificity, PPV and NPV of SV1 were 0.21, 0.80, 0.65 and 0.39 (Kappa 0.03, $p = 0.66$). The corresponding values of SV2 were 0.73, 0.84, 0.88 and 0.66 (Kappa 0.55, $p < 0.001$) and SV3 were 0.87, 0.61, 0.78 and 0.74 (Kappa 0.49, $p < 0.001$).

Conclusion - SV2 and SV3, but not SV1, showed satisfactory psychometric properties that make them suitable tools to screen for pADL in older adults. They are more relevant in resource limited settings where overcrowding is likely.

ID: PT_060

Theme: Instability

Title: Validation of the Sinhala version of specific health-related quality of life questionnaire for Sarcopenia (SarQoL®)

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Background: SarQoL® is a specific questionnaire to evaluate the quality of life (QoL) associated with sarcopenia. It has been adapted and validated into many languages worldwide. This study conducted to cross-culturally adapt the SarQoL® into Sinhala language and to identify the psychometric properties of Sinhala version.

Methodology: Standard protocol was followed (forward translation, synthesis, backward translation, expert committee review and test of the pre-final version) for cross-cultural adaptation of SarQoL®. The final Sinhala version of SarQoL®, along with the Short Form 36 survey (SF-36), were administered to 295 randomly selected older women (65 years) who regularly attended medical clinics in a major tertiary care hospital in southern Sri Lanka. Probable Sarcopenia was identified using local cutoff values of Handgrip Strength (HGS, kg). SarQoL® was re-administered after two-weeks of first administration among 34 women with probable sarcopenia. Psychometric properties including reliability, construct validity, discriminant validity, floor and ceiling effects were calculated.

Results: The mean (SD) age of study subjects was 72.1(4.8) years and 139 (47.1%) had probable sarcopenia. The internal consistency of the questionnaire was 0.82 and test-retest reliability was (ICC) 0.90 (0.81-0.96). SarQoL® score showed significant correlations with all dimensions of SF-36 (r range; 0.24 to 0.75, p<0.001). All the dimensions of SarQoL® showed significant correlations with the total SarQoL® score (r range; 0.37 to 0.91, p<0.001). Total SarQoL® score was lower among sarcopenia women compared to non-sarcopenia women [62.10 vs 54.24, p<0.001]. Mean scores of different dimensions of SarQoL® were also lower among the sarcopenic women (p<0.001). Neither floor nor ceiling effects were identified.

Conclusions: The Sinhala version of SarQoL® is a reliable and valid tool. It can be recommended for field and clinical studies to determine the QoL in older women with sarcopenia.

ID: PT_061

Theme: Instability

Title: Inflammatory Markers and Low Physical Performance, Sarcopenia, and Falls in Older Persons.

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Background: Several studies have presented the link between inflammatory markers with muscle loss, strength decline, and functional impairments, however, information on their role in falls among older persons is less explored. The aim of this study is to investigate the relationship between inflammatory markers and low physical performance, sarcopenia, and falls in individuals aged 60 years or older.

Methodology: A total of 604 of older adults residing in Klang Valley aged ≥ 60 years were recruited. Gait speed (GS) and handgrip strength (HGS) were assessed. Sarcopenia was screened and history of falls in past 12-month were obtained. Inflammatory markers test includes high-sensitivity C-reactive protein (hsCRP) (N=509), interleukin 6 (IL-6) (N=93), tumor necrosis factor alpha (TNFa) (N=85), and myostatin (MSTN) (N=91). Regression analysis was conducted to determine the odds ratio, OR (95% confidence interval) and adjustment were made for age, gender, body mass index (BMI), and co-morbidities; diabetes, hypertension, and high cholesterol.

Results: Among the 604 recruited participants (mean age 69.5 ± 6.1 years, 338 (56.0%) female), 164 (27.2%) reported falls in preceding 12-months. Increase in level of IL-6 (OR:0.68 (0.47-0.97), aOR:0.66 (0.45-0.97)) was associated with low GS while increase in level of hsCRP was associated with low HGS (OR:1.27 (1.05-1.54), aOR:1.29 (1.04-1.61)) even after adjustment for all possible cofounders. No association between inflammatory markers and falls was observed. Only hsCRP was associated with sarcopenia (OR:2.08 (1.57-2.76), aOR:1.53 (1.09-2.15)) and the relationship remained significant after adjustment.

Conclusions: Elevated levels of IL-6 and hsCRP may exert an impact on the physical performance of older individuals, however may not serve as a reliable predictor of falls. However, it is advisable to take into account the utilisation of hsCRP as a means of evaluating the risk of sarcopenia. while the use of hsCRP in assessing risk of sarcopenia should be considered.

ID: PT_062

Theme: Others

Title: Exploring the construct of superageing/superagers in the Malaysian Elders Longitudinal Research (MELoR) cohort.

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Background: Ageing is broadly recognised as a decline in quotidian physical and cognitive performances. Although this phenomenon seems universal, it is non-linear and varies between individuals. With this in mind, it is safe to assume that there could be individuals who can be recognised as a superager. Initially explored by the Northwestern SuperAgeing study, superagers were individuals who were at least 80 years old with exceptional episodic memory comparable to individuals 20 to 30 years younger/middle-aged adults. However, since then it has been explored by many other studies and with variable age cut-offs too.

Aim: This study will attempt to characterise the construct of superageing/superagers through selected sub-domains of the intrinsic capacity of healthy ageing which are aspects of vitality, locomotion and cognition.

Methodology: MELoR participants who were at least 70 years old during baseline assessments (years: 2013-2015) and who also attended the in-person follow assessments (years: 2020-2022) were selected for this study. Vitality was assessed through handgrip strength (HGS), locomotion through timed-up-and-go (TUG) and cognition through the Montreal Cognitive Assessment (MoCA). A Functional Ability Score (FAS) was developed to aid in the identification of participants who would fit the construct of superageing/superagers. A score of '0' is given if a participant is weak/slow for a measure and '1' if they are normal. The sum of the scores at both time points of assessments respectively will reflect the number of measures a participant is normal for. Participants who score 3 at baseline and follow-up respectively, will be identified as a superager.

Results: 185 participants attended the follow-up assessments and 46 of them fit the age criteria. A final number of 9 (3 females and 6 males) participants fit the superager construct for this study.

Conclusion: This study will provide a demographically-suited characterisation of the superageing/superager construct which could be referred to as a standard for maintained functional ability in older age for the Malaysian population and population demographically similar to Malaysia.

ID: PT_063

Theme: Instability

Title: High Sensitivity Troponin I in Older Patients with Hip Fracture

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Background: Hip fractures are common injuries among the elderly and often necessitate surgery in this patient population. These patients often have multiple comorbidities and are at risk of perioperative complications, including cardiac events which contribute to significant morbidity and mortality. High sensitivity troponin I (hs-TnI), a biomarker of myocardial injury, may predict such adverse outcomes. However, there are limited studies on its role in preoperative assessment in this patient group.

Aim: To evaluate the patient characteristics of hs-TnI measurement in elderly patients admitted with hip fracture for important clinical outcomes, including time to surgery, perioperative complications, and inpatient mortality.

Methodology: A retrospective cohort study was conducted among elderly patients with fragility hip fractures admitted to the Orthopaedic Ward in University of Malaya Medical Centre from January to April 2023. Patient demographics, clinical characteristics, and perioperative data, including serum hs-TnI levels on admission, time to surgery, complications and inpatient mortality were obtained from electronic medical records. Raised levels of hs-TnI were determined according to the hospital laboratory cutoff values, ≥ 56 ng/L for males and ≥ 30 ng/L for females.

Results: A total of 96 patients were recruited with a mean age of 79.7 years (SD 7.8) and 75 patients (78.1%) were female. Overall, 41 patients (42.7%) had hs-TnI levels measured on admission, among which 8 (19.5%) had raised troponin levels. The median time to surgery was 3 days (IQR 2.8-5.0) for all patients. The inpatient mortality rate was 3.2% (n=3). Univariate analyses demonstrated that patients who had troponin levels measured on admission were of older age (81.4 ± 7.5 years vs. 78.5 ± 7.9 years, $p=.024$), nursing home residents (OR 5.46, 95% CI 1.07-27.83, $p=.030$), history of diabetes (OR 2.23, 95% CI 0.96-5.19, $p=.047$) and those with a higher My4AT score on admission [1 (IQR 1-3) vs. 1 (IQR 1-1), $p=.024$]. On the other hand, patients with dementia were less likely to be subjected to serum troponin I measurement (OR 0.18, 95% CI 0.04-0.94, $p=.030$). Among those with measured serum troponin I, older patients were significantly associated with elevated troponin levels (85.7 ± 5.4 years vs. 80.4 ± 7.7 years, $p=.041$). There was no significant difference in time to surgery, perioperative complications and inpatient mortality with troponin measurement or elevated troponin results.

Conclusion: Preoperative measurement of hs-TnI and increased levels do not predict the occurrence of adverse clinical outcomes in older patients with fragility hip fracture. These results indicate that routine measurement of hs-TnI in such patients is not necessary without evidence of an acute myocardial infarction.

ID: PT_064

Theme: Intellectual Impairment

Title: Social Isolation in Older People living with Osteoarthritis is Associated with Poor Cognitive Performance

Authors: Seow Shi Rui^{1*}, Sumaiyah Mat¹, Nor Fadilah Rajab¹, Intan Safinar Ismail², Devinder Kaur Ajit Singh¹, Suzana Shahar¹, Tan Maw Pin^{3,4} and Francis Berenbaum⁵.

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Background: Osteoarthritis (OA) is a common degenerative joint disease in Malaysia's ageing population. Due to persistent joint pain, individuals with osteoarthritis often result in physical inactivity and reduced functional independence, which are exacerbated in the presence of diabetes mellitus (DM). Previous studies proposed DM and social isolation as risk factors for poor cognitive performance, however, no similar investigation has been performed in Malaysia yet. This study aims to examine the interplay of social isolation and cognitive performance in older people with both OA and DM.

Methodology: The cross-sectional analysis was conducted based on sample population recruited from community-dwelling older adults of 50 years old and above in Klang valley and Selangor, subjects were interviewed with The Lubben Social Network Scale-6 (LSNS-6) to evaluate their social isolation degree. Following that, cognitive assessment was carried out using Visual Cognitive Assessment Test (VCAT). Based on disease history, clinical American College of Rheumatology criteria, and reading of blood glucometer, participants were categorized into two groups: osteoarthritis with and without diabetes.

Results: The study samples consisted of 136 (67.3%) OA with DM and 66 (32.7%) OA without DM participants. Cognitive categorical groups of cognitive impaired, mild cognitive impairment and good cognitive showed significant association with eyesight related disease history ($X^2(2, N=144) = 10.460, p=0.005$). Meanwhile, Fisher's exact test indicated that presence of social isolation was significantly associated with stroke history ($p= 0.047$). Both OA groups with and without DM showed significant association and correlation between social isolation and VCAT scores ($X^2(2, N=136) = 11.36, p=0.003$; $X^2(2, N=66) = 7.881, p=0.019$) ($r(134) = 0.383, p<0.001$; $r(64) = 0.335, p=0.006$).

Conclusion: The presence of OA regardless of DM comorbidity is significantly associated and correlated with social isolation and poor cognitive performance. This finding could be used to guide future cohort studies in elucidating the temporal relationship between social isolation and cognitive impairment in OA and DM population.

ID: PT_065

Theme: Others

Title: Anthropometry measurement difference in Osteoarthritic older adults with or without Diabetes Mellitus

Authors: Seow Shi Rui^{1*}, Sumaiyah Mat¹, Nor Fadilah Rajab¹, Intan Safinar Ismail², Devinder Kaur Ajit Singh¹, Suzana Shahar¹, Tan Maw Pin^{3,4} and Francis Berenbaum⁵.

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Background: Osteoarthritis (OA) and diabetes mellitus (DM) are both high prevalence morbidities in Malaysia's ageing population due to their shared risk factors. Unlike hip OA, knee OA often presents with complications even after total knee arthroplasty or treatment, studies suggest that the comorbidity of DM is potentially linked to the worsening symptoms and severity of OA. The influence of DM metabolic dysregulation on OA formation is hence termed as Diabetes Mellitus-induced Osteoarthritis (DM-OA). This study aims to determine the differences in anthropometric measurements in OA older adults with and without DM.

Methodology: This study was based on a cross-sectional project that recruited older adults of 50 years old and above in Klang valley and Selangor, the study collected anthropometry measurements: weight, height, waist circumference, hip circumference, calf circumference, body mass index (BMI), waist-to-hip ratio (WHR), percentage body fat and muscle mass. Based on disease history, clinical American College of Rheumatology criteria, and reading of blood glucometer, participants were categorized into four groups: OA-DM-, OA+DM-, OA-DM+, and OA+DM+.

Result: Of 421 community-dwelling older adults, mean (SD) age = 66.58 (5.715), the prevalence of OA-DM-, OA+DM-, OA-DM+, and OA+DM+ were 27.6%, 38.6%, 12.2% and 21.6% respectively. OA+DM+ group has the highest BMI scores and was significantly different from the other groups ($p < 0.001$). Measurement of right calf circumference ($p = 0.019$) and percentage body fat ($p = 0.043$) in OA+DM+ group were also significantly different as compared to healthy controls. Notably, left calf circumference ($p = 0.019$) was significantly different in both OA positive groups and has the highest difference in OA+DM+ group. On the other hand, the presence of DM regardless of OA significantly presented statistically different WHR ($p < 0.001$). No statistical difference was found between groups on muscle mass.

Conclusion: Our findings suggest anthropometry measurements in OA and DM adults were in line with the fat metabolism postulation in DM-OA development. This will guide healthcare practitioners in developing treatment plans in patients presenting with these comorbidities.

ID: PT_067

Theme: Intellectual Impairment

Title: Acetylcholinesterase Inhibitors in Older People Living with Dementia

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Background: The rising global geriatric population has contributed to an increase prevalence of dementia. Dementia is a neurodegenerative disease characterized by progressive deterioration of cognitive functions. Acetylcholinesterase inhibitors (AChEIs) have been developed to delay the progression of neurocognitive disorders. However, the rising use of AChEIs results in increase adverse drug reactions (ADRs). To date, comprehensive reviews in ADRs of AChIs have been scarcely studied, especially in our local setting. Therefore, we aimed to study the incidence of ADRs in our local setting.

Aim: To capture the incidence ADRs of AChIs in the Geriatric Clinic in KPJ Damansara Specialist Hospital between November 2020 till April 2023.

Methodology: This is a retrospective data analysis of incidence of ADRs of AChIs among the older patients with dementia who attended the Geriatric Clinic.

Results: There are a total of 170 dementia cases who attended the Geriatric clinic between November 2020 till April 2023. 103/170 were commenced on anti-dementia. 87% (90/103) were on AChIs and 12.6% were on NMDA (N-Methyl-D-Aspartate) antagonist. 16% (15/90) developed adverse drug reactions to AChIs. The commonest adverse ADRs is drowsiness (6/15), followed by nausea (6/15). 3 (20%) patients were reported to have bradycardia.

Of these, 5/15 were challenged with another type of AChIs, while 4/15 were switched to an NMDA antagonist.

Conclusion: Previous studies have shown that nausea and vomiting are the commonest ADR in those on AChI. In our cohort, drowsiness seem to be the top on the list. We have also documented a high incidence of bradycardia. This study highlights the importance of ECG evaluation before and after AChI initiation as part of clinical monitoring of at-risk patients. A close follow up upon initiation of therapy is also advised.

ID: PT_068

Theme: Immobility

Title: Abstract: Relationship between glucose level and Osteoarthritis among older adults in Lembah Kelang

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Background: Type 2 diabetes mellitus and osteoarthritis are commonly faced by the older adults. Increasing age, pancreatic beta cell function will also decrease and lead to diabetes. Increasing age also affects the joint and the cartilage wears and tears causing osteoarthritis. Osteoarthritis has been associated with systemic metabolic disturbance commonly seen in type 2 diabetes mellitus. Therefore, diabetes influences the pathophysiological process of osteoarthritis. Since both osteoarthritis and diabetes are metabolic syndromes, hyperglycaemic conditions can alter the normal metabolic process of cartilage and lead to osteoarthritis.

Methodology: This study was conducted to determine the relationship between glucose level and level of pain in Osteoarthritis among older adults in Lembah Kelang. A total of 417 participants among older adult were randomly selected in this cross-sectional study through purposive sampling. Questionnaires consist of sociodemographic, medical history, KOOS (Knee Injury and Osteoarthritis Outcome Score) and physical performance was done via face-to-face interview. The data collected then analysed using ISM SPSS version 26.

Results: Result showed that mean for glucose and pain level is 7.04 and 4.44 respectively. And the mode is 23% for pain level 5, which is most of the pain among subjects were moderate. A Shapiro-Wilk's test ($p < 0.05$) and the normal Q-Q plots showed that the glucose level and pain of osteoarthritis level were not normally distributed. Spearman correlation was done and there was a correlation between glucose level and level of pain in Osteoarthritis ($p: 0.041 < 0.05$) and $r_s = 0.142$, $p = 0.041 < 0.05$.

Conclusion: In conclusion, there were positive correlation between level of glucose and level of pain in Osteoarthritis patients among older adult in Lembah Kelang.

ID: PT_069

Theme: N/A

Title : A STUDY ON THE RELATIONSHIP BETWEEN SOCIAL PARTICIPATION, OBESITY AND QUALITY OF LIFE AMONG THE OLDER ADULTS IN KLANG VALLEY

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Background: The older adults are 60 years and older, and this group needs attention from a welfare aspect and personal needs. In addition, aging and health problems are often discussed among the elderly, especially those with obesity and low quality of life. This is because they need a good lifestyle and healthy aging to guarantee their health and quality of life. Several studies show that social participation is beneficial because maintaining an active social lifestyle can help prevent and reduce the negative effects of social isolation and loneliness among older adults. Therefore, this study was conducted to determine whether social participation can mediate the relationship between obesity and quality of life among older adults.

Methodology: A cross-sectional study was conducted to determine the relationship between social participation, obesity, and quality of life among older adults in Klang Valley. A total of 417 older adults were randomly selected as study participants from Klang Valley through purposive sampling. The questionnaire includes sociodemographic data, anthropometric measurements, CASP-12, and LSNS-6. The data obtained were analysed using IBM SPSS version 26.

Results: According to the results, 70.5% of senior adults are not obese, while 29.5% are obese. The level of quality of life attained by older adults is 26.4% (low), 27.3% (moderate), and 46.3% (high). In addition, 18.4% of senior adults are socially isolated, while 81.6% are not socially isolated. A Pearson correlation test reveals a non-significant negative, weak correlation between obesity and social participation ($r=-0.013$, $p=0.805$). There is also no significant correlation between obesity and quality of life ($r=0.057$, $p=0.300$). However, a significant correlation between the quality of life and social participation is insignificant, $r=0.283$, $p\leq 0.00$. According to the mediation principles, the mediation analysis cannot be conducted because there is no basis for mediation.

Conclusion: In conclusion, a positive relationship exists between social participation and quality of life. However, social participation is not a mediating factor in the problem of obesity and the level of quality of life among older adults in Klang Valley.

ID: PT_070

Theme: Immobility

Title: Psychological Risk Factors Associated with Worsening Knee Osteoarthritis Symptoms in The PISA Cohort

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Background: Knee osteoarthritis (KOA) is a common cause of reduced mobility among older people. Reduced mobility leads to deconditioning and sarcopaenia, initiating a vicious cycle of ever reducing function and increasing disability. Depression is a well-known psychological risk factor of KOA symptoms, but others are less well elucidated.

Methodology: The Promoting Independence in Our Seniors Arthritis (PISA) Cohort is group 230 of older persons followed up for up to four years. They were recruited from a major tertiary hospital and its surrounding area. Basic demographic data and physical attributes were collected for every patient. KOA symptoms severity was measured using the Knee Osteoarthritis Injury and Outcome Score (KOOS) and worsening was defined as having a decline in total KOOS score of more than 5%. Psychological risk factors were repeatedly measured at each visit using the Hospital Anxiety and Depression Scale (HADS), Keele Assessment of Participation (Keele), Life Satisfaction Scale (LiSAT), and the Lubben Social Network Scale (Lubben). Binary logistic regression was used to adjust for confounders of the variables predicting the outcome of worsening KOA symptoms.

Results: 230 participants with a mean age of 66.9 years had a mean follow-up for 29.23 months. A significant correlation was found between depression and KOOS (Pearson's correlation=-0.320, p<0.01). However, when depression was adjusted for age and sex it [Odds ratio 1.080, 95% confidence interval 0.969-1.203] was no longer a significant predictor in our cohort. When adjusted for age and sex, Lubben was a statistically significant predictor of reduced KOA symptom worsening [Odds ratio 0.924, 95% confidence interval 0.857-0.997] However, handgrip strength and depression attenuated this effect.

Discussion: Our study showed that reduced social participation is statistically significant predictor of the worsening of KOA symptoms. Depression and right handgrip strength attenuating this effect in our analysis shows that social participation is mediated by depression and handgrip strength. The implication of study shows that rather just intervening by treating the depression or increasing handgrip strength, we should work to increase social participation. Further research and will be needed to prove improving social participation can improve handgrip strength and depression.

ID: PT_071

Theme: Immobility

Title: Acquired Hemophilia A Associated with Bullous Pemphigoid in Elderly

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Background: AHA is a rare autoimmune bleeding disorders. The annual incidence of one per 1.000.000. AHA caused by the development of circulating autoantibodies against coagulation factor VIII. Half cases with no underlying disease were identified. The remaining cases have coexisting conditions, such as autoimmune diseases, solid organ and/or hematologic malignancy, pregnancy, and medications

Aim: We report a 75 years old women presenting with bleeding because of a trauma to her knee, hematoma and ecchymosis around neck and both hands, and also erysipelas on her left hand. This patient already has history of bullous pemphigoid and chronic venous insufficiency since 2021. Life-threatening conditions, such as massive bleeding and upper airway obstruction, can occur; therefore, early diagnosis and effective treatment are important.

Methodology: a case report

Results: Patient with history of bullous pemphigoid and chronic venous insufficiency has bleeding because of a trauma to her knee, hematoma, ecchymosis, and erysipelas on her left hands. Blood analysis confirmed AHA. Treatment involves both suppression of autoantibody production with immunosuppressive drugs and bleeding control with bypassing agents. The management of this patient with activated prothrombin complex concentrate for bleeding control, corticosteroid, mechanical compression dan early mobilitation.

ID: PT_072

Theme: Intellectual Impairment

Title: Lost Time, Missed Opportunities: Unveiling Delayed Dementia Diagnosis

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Background: Delayed and missed dementia diagnosis leads to treatment gaps, increased burden on patients and caregivers, higher hospitalization rates, and elevated healthcare costs. Early detection of dementia aligns with the goal of high-quality healthcare, enabling timely interventions and support to improve patient outcomes.

Aim: The objective of this study was to identify the prevalence, demography and factors associated with delayed diagnosis of dementia among patients presenting with cognitive impairment for the first time at the Memory Clinic of Hospital Kuala Lumpur (HKL).

Methods: This retrospective observational study was conducted on all new patients who presented to the Memory Clinic at Hospital Kuala Lumpur between January and April 2023.

Results: A total of 79 patients were recruited for this study. The majority of participants were of Chinese ethnicity (35.4%), females (53.2%), and had a mean age of 77.2 years. Late presenters were defined as those having moderate to severe dementia upon first consultation. Out of the total, 33 (50%) patients were identified as having a delayed diagnosis. These patients were more likely to have behavioural and psychological symptoms of dementia (BPSD) ($p < 0.01$). They were also more likely to be diagnosed with mixed dementia at 48.5%. Interestingly, the reported timing of symptom onset between early and late presenters did not show a significant difference. On average, symptoms onset occurred 2.99 ± 2.2 years before diagnosis.

Conclusion: This study highlights a substantial prevalence of delayed diagnosis among individuals with dementia. Notably, those who experienced delayed diagnosis were found to have a higher likelihood of presenting with BPSD, thereby contributing to increased caregiver stress and subsequent treatment-seeking behaviour. Furthermore, the reported short duration between symptom onset and diagnosis indicates a lack of awareness regarding early symptoms of dementia and the need to seek treatment early within the community. These findings underscore the necessity for further research on dementia awareness in order to promote early and effective interventions, ultimately leading to improved treatment outcomes.

ID: PT_073

Theme: Others

Title: Validation of Hospital Frailty Risk Score (HFRS) in Older Patients with Heart Failure

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Background: Frailty is a dynamic and evolving state of health which involves the gradual loss of physiological in-built reserves leading to losses in one or more domains of human function (physical, cognitive, psychological and/or social) and increases the vulnerability of older adults to adverse health-related outcomes. The Hospital Frailty Risk Score (HFRS) is a validated tool that utilises International Classification of Diseases codes (ICD-10) to highlight frailty risk (2,3).

Methodology: A retrospective study of electronic health records (EHR) was performed in patients ≥ 65 years admitted under the value driven care heart failure (HF) pathway between 1st January 2021-30th April 2021. Patients were identified using ICD codes for HF and categorised into low risk (<5), intermediate risk (5-15) and high risk (>15) of frailty using HFRS. We sought to compare HFRS to the Charlson Co-Morbidity index (CCI) and validate HFRS as a predictor of adverse outcomes, such as hospitalisation utilisation and mortality in heart failure patients.

Results: In the 208 patients with HF, 50.5% were male with a mean age of 79.4 years, median 79 years, with older patients (84.8 vs 76.5 years, $p < 0.001$) at higher risk of frailty. Using HFRS, 35.1% were deemed low risk, 46.2% intermediate risk and 18.7% high risk of frailty.

Hospital Length of Stay (LOS), defined as ≥ 7 days, was significantly longer in those at high risk of frailty (74.4% vs 16.4%, $p < 0.001$) but 30-day unplanned hospital re-admission was not significantly different (25.5% vs 13.3%, $p > 0.05$.)

Univariate analyses showed higher in-patient, 30-day, 90-day and 365-day mortality in those at high risk of frailty. In-patient mortality (10.3% vs 0%, $p < 0.01$), 30 day mortality (12.8% vs 0%, $p < 0.01$), 90 day mortality (30.8% vs 1.4%, $p < 0.001$) and one year mortality (51.3% vs 11%, $p < 0.001$).

Dementia was more common in those at high risk of frailty (33% vs 0%, $p < 0.001$) as was renal disease (59% vs 37%, $p < 0.05$).

Conclusions:

First locally validated study in Singapore looking at the HFRS in heart failure patients. Patients with higher scores on HFRS have poorer health outcomes including longer hospital LOS and higher risk of mortality.

ID: PT_074

Theme: Instability

Title: SARC-F predicts the physical functions and quality of life in older women

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Background: SARC-F is a self-reported short questionnaire that reflects the individual's perceptions of adverse outcomes of sarcopenia and SARC-F score ≥ 4 detects individuals at risk of sarcopenia. The association of SARC-F with physical functions and quality of life in older women was investigated in this study.

Methodology: Locally validated SARC-F and SarQoL[®] questionnaires were administered to 295 randomly selected older women (≥ 65 years) who regularly attended medical clinics in a major tertiary care hospital in Southern, Sri Lanka. Relative Appendicular Skeletal Muscle Mass Index (RSMI, kg/m^2) was estimated using locally validated anthropometry equation. Body Mass Index (BMI, kg/m^2), Handgrip Strength (HGS, kg) and Gait Speed (GS, m/s) were also measured. Pearson's Correlation followed by Multiple Linear Regression was used to analyze data.

Results: Mean (SD) age of study subjects was 72.1(4.8) years and 58 % (n=171) were at risk of sarcopenia, based on the SARC-F. HGS, GS and scores of all the domains of SarQoL[®] (Physical and Mental Health, Locomotion, Body Composition, Functionality, Activities of daily living, Leisure activities and Fears) were significantly lower among those with SARC-F score ≥ 4 ($p < 0.05$). The total SARC-F score correlated with age (r; 0.18), BMI (r; 0.16), HGS (r; -0.27), GS (r; -0.44) and SarQoL[®] domain scores (r range; -0.22 to -0.70 and $p < 0.001$ for all). SARC-F scores, adjusted for age and BMI, showed significant associations with functionality domain (β ; -0.48) and activities of daily living domain (β ; -0.20) of SarQoL[®] and GS (β ; -0.14) [Model R=0.72, Adjusted R² = 0.52, SEE = 1.66].

Conclusions: While the SARC-F helps to identify people at risk of sarcopenia, it also predicts poor physical functions and poor quality of life in older women.

ID: PT_075

Theme: Others

Title: Transforming Caregiver Training for Older Adults in Acute Care Settings: Insights from a Qualitative Study

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Background: Caregiver training plays a crucial role in alleviating healthcare burdens on older adults. This study aims to explore occupational therapists' experiences in providing caregiver training in acute care geriatric settings in Malaysia and identify strategies to enhance its quality.

Methodology: We recruited six highly experienced occupational therapists with over nine years of clinical practice in acute care geriatrics setting. Online teleconference sessions were conducted and recorded, and thematic analysis was performed using ATLAS.ti software.

Results: The analysis yielded two main themes with seven sub-themes: (i) Key challenges in caregiver training (limited ability to accurately assess caregiver needs; absence of comprehensive and structured training guidelines; communication barriers with physicians; caregiver-related difficulties encountered during training sessions; challenges in establishing and nurturing relationships with older adults), (ii) effective strategies for improving caregiver training services (the imperative need for well-defined and evidence-based caregiver training guidelines; harnessing the potential of technology to enhance caregiver training effectiveness). This study highlighted the need for greater attention to the knowledge and skills of occupational therapists in delivering caregiver training to older adults. Based on the qualitative findings, a practice framework was developed to assist occupational therapists and other healthcare practitioners in providing superior-quality caregiver training in acute care settings.

Conclusion: The implications of this study contribute to the existing body of knowledge on caregiver training and hold significant potential for enhancing the healthcare industry in Malaysia by improving the quality of caregiver training services provided to older adults.

ID: PT_076

Theme: Others

Title: Enabling Active Participation in Stroke Recovery: Developing & Validating Caregiver Training Guideline for Occupational Therapists

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Background: Stroke has a profound impact on the independence and quality of life of older adults, making it a leading cause of disability. The involvement of caregivers is essential for long-term progress and successful adaptation of the elderly to engage in daily activities. This study aims to develop and validate a caregiver training guideline, enabling occupational therapists to enhance the participation and functional outcomes of older adults with stroke by actively involving their caregivers.

Methodology: A rigorous mixed-method design was employed across two distinct phases. The initial phase, Phase 1, adopted a qualitative approach to develop the caregiver training guideline, employing a systematic literature review, cognitive interviews with a group of six occupational therapists, and a focus group discussion involving nine experts. Thematic analysis was utilized to analyze the data obtained from Phase 1. In phase 2, Cohen Kappa Index (CKI) and Content Validity Index (CVI) were employed to establish the face and content validity of the guideline.

Results: The guideline consists of three parts that covered nine topics related to caregiver training (Part A: Psychoeducation; Part B: Basic Activities of Daily Living Training; Part C: Instrumental Activities of Daily Living Training, Stress Management, and Home Program). The analysis demonstrated excellent face validity and content validity, with CKI and CVI values of 1.0.

Conclusion: Based on the findings, it can be concluded that the developed caregiver training guideline exhibits excellent validity. By enhancing the involvement of caregivers, this guideline has the potential to positively impact the independence and quality of life of older adults with stroke, thereby improving their overall functional outcomes. As a next step, further research is recommended to test the feasibility and effectiveness of implementing the guideline in clinical settings.

ID: PT_077

Theme: Others

Title: The impact of buddy training on older adults' daily living, social participation and emotional well-being

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Background: The Compeer Model, which was originally designed to match individuals recovering from mental illness with volunteers from their community, serve as the basis for the development of the buddy program. However, limited research had been done related to the buddy program among older adults in a Malaysian context.

Aim: The study aimed to identify the effectiveness of buddy program training module to enhance the daily living function, social participation and emotional status of the older adults in residential aged care homes.

Methodology: A quasi-experimental study was conducted with 30 pairs of buddies and older adults for both the experimental group and control group in two randomly selected residential aged care homes. The buddies in the experimental group received buddy program training module related to activities of daily living (basic and instrumental) while buddies-older adults pairs in the control group continued to perform usual daily life activities in residential aged care homes. Baselines were performed before intervention and eight weeks post-intervention.

Results: Over the eight weeks, for the older adults in the experimental group, there was a significant main effect of time after the intervention on BADL ($p=0.010$). There were no significant interaction effect of experiment group and control group on IADL and social participation. Also, there were no significant interaction effect for all domain in emotional status: depression, anxiety and stress. For buddy, there was a significant interaction effect for depression ($p=0.045$) in the control group.

Conclusions: The buddy program training module can be used as a guideline for older adults in residential aged care homes in managing activities of daily living with more significant disabilities. Future studies could be implemented to explore the intergenerational buddy program among older adults and young children in the community.

ID: PT_078

Theme: Others

Title: Falls prevention among geriatric patients at hospital setting : An integrated mini review

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Aim: This article summarise research and draws overall conclusion on falls prevention interventions for geriatric patients at hospital setting and insights to plan proper fall prevention. Design: Integrative literature review with search of CINAHL, MEDLINE, and SCOPUS and ancestry searching literatures between 2020 to 2023. Methods: The methodology of Whittemore and Knafl was used to perform from review. Findings: Multifactorial fall prevention intervention programs that included fall risk assessments, environmental and equipment modifications, staff and patient safety education .

Conclusion: Extrinsic risk factors combined with behavioral and intrinsic factors contribute to falls in geriatric patients at hospital setting. Clinical Relevance: The fall risk identification, multifactorial falls assessment and post-fall assessment among geriatric patients in hospital settin should be practiced by health practitioners in order to develop efficient fall prevention plan.

ID: PT_079

Theme: Others

Title: Fall Prevention Among the Elderly Through Medicine Optimization

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Background and Aim: Fall and Fall-related injuries are very common among the elderly population with an increasing number of events across the world. The elderly population receives multiple medications due to their multimorbidity and polypharmacy is unavoidable among them. Multiple medications are very essential to bring better health outcomes among the elderly but it also contributes to negative consequences which sometimes lead to lethal or bring morbidity.

Methodology: Cardiovascular and cerebrovascular medications, antidiabetic and anticholesterol medications contribute to more incidences of falls compared to other classes of medications. Even though, falls and fall-related injuries are global problems, western countries developed structured mitigation systems via elderly supportive care, medication optimization programme, fall training programmes, and physical and rehabilitation system for fall victims. The structured interventional programmes to prevent falls and fall-related injuries are in infancy in Asia, Africa, and the Western-Pacific region.

Results: In Malaysia, many healthcare professionals are not aware of the prevalence, incidences, causes, morbidity and mortality of falls, and hence, this area is least focused by them. As the population in these regions are growing older and as estimated by the WHO, India, China, Malaysia, Japan, and many parts of Asia will be a hub for older persons. Few studies were recently carried out in public university hospitals and selected primary clinics where the prevention of bedside falls is focused on the former and medication review and optimisation were focused on the latter.

Conclusion: More focused interventional strategies are needed in the future, clinicians, medical doctors, pharmacists, nurses, and allied health staff need to put their hands joined together to develop these strategies to prevent falls and fall-related morbidity and mortality among the elderly population. In addition to educating the elderly, care providers also need to be educated and more studies are warranted on fall education and fall prevention.

ID: PT_080

Theme: Immobility

Title: The WE-RISE™ multi-domain cognitive frailty intervention: Impact on physical and cognitive function within lower-socioeconomic population.

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Background: Older persons of lower socioeconomic status (SES) are more vulnerable to cognitive impairment and frailty and are more likely to experience higher severity of cognitive frailty. Multi-domain interventions are theorized to be beneficial in the prevention or reversal of cognitive frailty. Hence the WE-RISE™ intervention was developed to address the multiple facets of CF within the lower SES population.

Aim: This study aimed to investigate the impact of the WE-RISE multi-domain intervention on physical and cognitive function in older persons with CF.

Methodology: A total of 55 community dwelling older persons with cognitive frailty participated in this feasibility study. The experimental group (EG) received the novel WE-RISE™ intervention comprising cognitive stimulation, multi-component exercise, dietary counselling and psychosocial support carried out for 12-weeks at senior citizen activity centers. The control group (CG) received usual care. Participants were assessed at baseline and the 12th. Cognitive Frailty was identified using the Clinical Dementia Rating Scale and Fried Frailty Index. The Senior Fitness test and 6-Meter Gait Speed Test was used to assess physical function. Cognitive function was assessed using the Mini Mental State Examination (MMSE), Digit Span (DS) test, Ray Auditory Verbal Learning Test (RAVLT) and the Trail Making Test (TMT). Differences between the percentage of mean change in outcome measures for EG and CG was analyzed via independent T-test.

Results: The EG exhibited significantly better physical and cognitive function after participation in the WE-RISE™ intervention compared to the CG. For physical function, EG showed significant improvement in endurance (EG:43.5%;CG:-1.59%), lower limb strength (EG:14.2%;CG:-0.8%), dynamic balance and mobility (EG:5.0%;CG:-8.6%), and gait speed (EG:5.3%;CG:-3.68) as compared to CG ($p<0.05$). As for cognitive function, EG outperformed the CG in global cognition (EG:16.5%;CG:0.48%), immediate verbal memory (EG:76.9%;CG:17.1%), attention and working memory (EG:39.3%,CG:-12.6%), and complex attention (EG:26.4%;CG:-2.3) ($p<0.05$).

Conclusion: The findings of this study indicate that the multi-domain, WE-RISE™ intervention is beneficial in improving physical and cognitive function of cognitively frail older persons within 12 weeks of engagement. Multi-domain interventions such as WE-RISE™ should be considered as a health promotion program for the prevention and management of CF within the community, especially the lower SES population.

ID: PT_081

Theme: Intellectual Impairment

Title: Balance Confidence and Fall Locations: Comparing between Older Fallers With and Without Mild Cognitive Impairment

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Background: Mild cognitive impairment (MCI) and the fear of falling (FoF) are both established fall risk factors among older adults. However, the differences about balance confidence and fall locations between older fallers with and without MCI have not been adequately studied.

Aim: We aimed to compare FoF and fall locations between older fallers with and without MCI.

Methodology: Fifty three older fallers (31 females, 22 males) aged ≥ 60 (mean \pm SD=76.53 \pm 6.59) from the Falls Clinic at the Universiti Malaya Medical Centre were categorized into 2 groups – MCI and non-MCI – using the Visual Cognitive Assessment Tool (cut-off score ≥ 23). Participants' sociodemographic data and fall history including locations were obtained using a customised structured questionnaire. The Activities-specific Balance Confidence 6-item Scale (ABC-6) was used to assess participants' FoF. Physical activity as a confounding factor was measured using the Modified Baecke Questionnaire.

Results: Fallers with and without MCI did not differ significantly ($p > 0.05$) in fall locations, though both groups reported higher frequencies of falls inside rather than outside their homes. Those with MCI had significantly ($p < 0.05$) lower ABC-6 scores (40.70 \pm 26.32) compared to non-MCI (57.98 \pm 20.40) fallers. Modified Baecke Questionnaire scores were similar ($p > 0.05$) between the groups.

Conclusion: Fallers with MCI had higher FoF but similar fall locations and physical activity levels compared to fallers without MCI. An emphasis on addressing FoF is required when tailoring fall prevention strategies for older fallers with MCI.

ID: PT_082

Theme: N/A

Title: Clinical Characteristics of Older Adults Receiving Operative versus Conservative Management for Fragility Hip Fractures.

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Background: Fragility hip fractures are common in elderly. The aim of our study was to describe specific characteristics of patients suffering from fragility hip fractures and evaluate factors that might influence treatment decisions.

Methodology: A retrospective study was conducted on 56 patients who were admitted to Klang General Hospital with fragility hip fractures between January 2022 and June 2022. We evaluated their clinical characteristics and the management received.

Results: The surgical rate at Klang General Hospital was 64.3%, while non-surgical rate was 35.7%. The mean age of the operated patients was 75.33 ± 6.53 , while the non-operated patients was 79.30 ± 11.23 . There is no statistical difference (p -value = 0.583) in terms of gender in both cohorts. Among those who were not operated on, 70% refused the procedure, 25% were medically unstable, and 5% had financial constraints. Among the patients who underwent surgery, 17% had delirium, whereas among the non-operated cohorts, 25% experienced delirium. Among the operated patients, only 11.10% were categorized as ASA 1, while the remaining 88.90% were classified as ASA 2. However, among the non-operated cohorts, it was noticed that 26.3% of ASA 1 and 63.2% of ASA 2 patients did not receive operative intervention, despite having mild systemic disease or well-managed chronic conditions.

Within the cohort of patients who underwent surgery, a majority of 97.20% were able to walk independently, while 2.80% of patients required assistance for their mobility prior to the fracture. In contrast, it was observed that the proportion of patients who did not undergo surgery had lower independent mobility (78.90%) compared to the group that underwent surgery. A higher proportion of non-operated patients (15.80%), required assistance for mobility, and 5.30% of patients required a wheelchair prior to the fracture. The obtained p -value of 0.041 indicates a statistically significant difference in pre-fracture mobility between the patients who underwent surgery and those who did not. Only 13.9% of patients who underwent surgery developed an infection while in the hospital, whereas 20% of non-operated patients experienced hospital-acquired infections. The length of hospital stays for patients who underwent surgery was 15.74 ± 6.49 days, whereas for patients who did not undergo surgery was 12.05 ± 7.71 days, with a p -value of 0.07. Of the patients who underwent surgery, all were alive, while among those who did not undergo surgery 5.3% died. All patients who received surgical treatment were able to return home after being discharged, while 16.7% of those who did not undergo surgery were institutionalized. The p -value associated with this finding is 0.011. The results show that surgical intervention increases the likelihood of being discharged to home, which may indicate improved health or reduced need for long-term institutional care. At discharge, nearly 30% of patients who underwent surgery and 50% of patients who were treated conservatively did not receive anti-osteoporosis medications, even though they were admitted for fragility fractures. The p -value associated with this finding is 0.098. This demonstrates a lack of awareness regarding the importance of initiating osteoporosis treatment for fragility fractures. Among those who were operated on, 97.2% received regional anaesthesia, while the remaining received general anaesthesia. Among those who underwent surgery, the average time to surgery was 13.03 ± 7.73 days. Postoperatively, nearly 70% of patients did not receive an early physiotherapy review on the day of surgery.

Conclusion: Patient's decision and pre-fracture mobility level can influence the decision to proceed with surgical treatment. All patients with fragility fractures, regardless of the decision to undergo surgery, should receive anti-osteoporosis medications. More attention should be paid to post-operative early mobilization in order to improve outcomes among patients who have undergone surgery.

ID: PT_084

Theme: N/A

**Title: UMMC Falls and Syncope Clinic Audit (October to December 2022):
Prevalence of Falls and Related Injuries, Osteoporosis and Treatment Used**

Authors: Mohd ZA^{1,2}, Nurulakmal O^{1,3}, Wan MJ^{1,3}, Terence Ong IW¹, Tan MP¹, Khor HM¹, Saedon NI¹

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Background: Falls are a leading cause of injury and injury-related death among older adults, significantly impacting health provisions. Fractures are prevalent in this cohort, usually due to falls and osteoporosis combined. This audit aims to report the experience of our geriatrician-led falls clinic, specifically on the injuries related to falls, the prevalence of osteoporosis and the treatment used.

Methodology: Data was collected from our electronic database from October to December 2023. Patients aged <65 years were excluded. Quantitative analyses included relevant statistical analyses to determine any variable-outcome associations.

Results: There were 120 reviews in the clinic involving 109 patients (11 patients had >1 review), mean age 79.6 years, female 63.3%. Most patients had falls (recurrent events 52.3%, single events 32.1%) and falls-related injuries (61.5%). Fourteen patients experienced head trauma, of which 71.4% resulted in intracranial haemorrhage. 45.9% of patients had injuries with fractures, the majority being hip fractures (62%). Over half of the patients had osteoporosis, and >75% were on treatment (Alendronate 69.8%, Denosumab 4.7%, Teriparatide 16.3%, Romosuzumab 0%). 41% of patients had restricted mobility (indoors only), with 39.4% using walking aids and 9.2% requiring a wheelchair.

Conclusion: Older patients are susceptible to fall-related injuries, mostly hip fractures. Most patients with osteoporosis were on bone protection. Some patients had limited mobility and required walking aids.

ID: PT_085

Title: UMMC Falls and Syncope Clinic Audit (October to December 2022): Comorbidities, investigations, and diagnosis.

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Background: Falls are a common and serious health issue in older adults. Older patients who have fallen should be investigated thoroughly to determine the aetiology to prevent the recurrence of falls. This audit aims to report the experience of our geriatrician-led falls clinic, specifically on the patient's comorbidities, the investigations done, and diagnoses made by our fall clinic.

Methodology: Data was collected from our electronic database from October to December 2022. Patients aged <65 years were excluded. Quantitative analyses were performed including relevant statistical analyses to determine any variable-outcome associations.

Results: 109 patients were seen in the clinic (mean age 79.6 years, female 63.3%) within a 3-month duration, with orthostatic hypotension being the most common primary diagnosis (44%). 4.6% of patients were diagnosed with arrhythmia and vasovagal syncope. 72.5% of patients had hypertension. Other comorbidities include diabetes mellitus (31.2%), cognitive impairment (22.9%), visual impairment (22.9%) and arthritis(19.3%). 50 patients underwent active-stand tests(45.9%) and 66% were positive. 18 patients (16.9%) underwent front-loaded GTN tilt with 50% of the patients were tested positive. 33% of the patients seen in the clinic were not tested for active/passive stand or front-loaded GTN tilt test.

Conclusion: Orthostatic hypotension is an important cause of falls in older adults. Tilt table testing remains an essential test in differentiating the causes of falls.